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Environmental assessment for NH-F 5-2(30)27 MCS weigh station on US Highway 93 (P.M.S. control no. 1337) in

MOTOR CARRIER SERVICE WEIGH STATION

NH-F 5-2(30)27
(P.M.S. Control No. 1337)

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ENVIRONMENTAL ASSESSMENT

FOR

NH-F 5-2(30)27
MCS WEIGH STATION on US Highway 93
(P.M.S. Control No. 1337)

IN

MISSOULA/LAKE COUNTY, MONTANA

This document has been prepared in conformance with the Montana Environmental Policy Act (MEPA) requirements and contains the information required for an Environmental Assessment under the provisions of ARM 18.2.237(2)(3) and 18.2.239. It has also been prepared in conformance with the National Environmental Policy Act (NEPA) requirements for an Environmental Assessment under 23 CFR 771.119.

Submitted pursuant to:
42 U.S.C. 4332(2)(c)
and
Sections 2-3-104, 75-1-201, MCA

by the

Montana Department of Transportation
Division of Highways
and
U.S. Department of Transportation
Federal Highway Administration

Submitted by: ______________________ Date: 3/3/97
Montana Department of Transportation
Environmental Services

Reviewed & Approved
for Distribution: ______________________ Date: 3-3-97
For Federal Highway Administration
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1.0 DESCRIPTION OF THE PROPOSED ACTION

This Environmental Assessment (EA) evaluates potential locations for a new Montana Department of Transportation (MDT) Motor Carrier Services (MCS) vehicle weigh station. The weigh station is to be located on the west side of US Highway 93 between Ravalli, Montana and the highway intersection with Interstate 90 northwest of Missoula, Montana. The site will permit monitoring of both northbound and southbound directions of travel. The location of the sites under consideration for the purposes of this EA are named below and are shown in Figure 1-1.

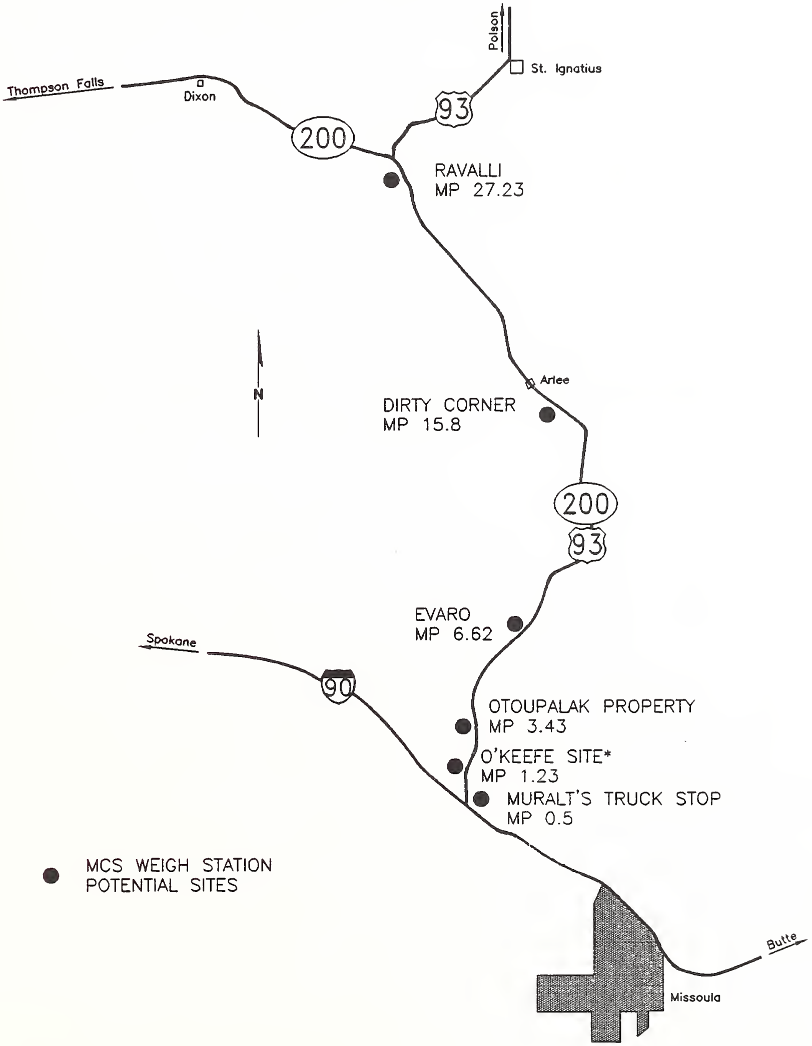
●	Alternative 1:	Muralt's Truck Stop	Milepost 0.50
●	Alternative 2:	O'Keefe Site	Milepost 1.23
●	Alternative 3:	Otoupalak Site	Milepost 3.43
●	Alternative 4:	Evaro Site	Milepost 6.62
●	Alternative 5:	Dirty Corner Site	Milepost 15.80
●	Alternative 6:	Ravalli Site	Milepost 27.23

The selected weigh station site will consist of a building designed to accommodate two-three MCS enforcement officers and a paved parking area designed to accommodate 9-12 commercial vehicles and up to three employee vehicles. The project will include a static "pit" type weight scale, sanitary facilities including a septic tank and drain field, a water well, electrical services and landscaping. The weigh station facility will be serviced by truck deceleration lanes and by left turn lanes to and from the site on US Highway 93.

A water well will be installed at the selected site by a Montana licensed water well driller to provide drinking water and water for the sanitary facilities. The well will be installed in accordance with standards and requirements specified in applicable county and state regulations governing water wells. Electrical services will be provided from the existing power lines existing at the selected site.

The weigh station will be serviced by an automated weigh-in-motion (WIM) system. The WIM will weigh northbound and southbound vehicles at highway speeds. A weight compliant vehicle will not be required to stop at the weigh station. A vehicle that is overweight, however, is directed into the weigh station by a changeable electronic message sign. The vehicle's weight is then confirmed using the static scale, and enforcement action is taken as required.

FIGURE 1-1
ALTERNATIVE MCS WEIGH STATION SITES



Commercial vehicles directed into the weigh station as a result of WIM originated weight information, are also checked for permit, credential safety and fuel tax compliance. A random sampling of the entire US Highway 93 truck traffic stream will also be directed into the weigh station so that overall commercial vehicle compliance with permit, credential, safety and fuel tax laws can be monitored.

As indicated above, the weigh station will be located on the west side of US Highway 93 and will monitor both southbound and northbound commercial vehicles. A deceleration/right turn lane will be provided for southbound vehicles accessing the proposed site. Northbound vehicles which must stop at the station will be required to cross the southbound lane to enter and exit the facility. The existing highway will be modified to provide a left turn lane to allow northbound vehicles to enter the weigh station without disrupting the northbound traffic flow. MDT recognizes that an additional traffic safety concern will result from the need for commercial vehicles to cross the southbound lane. To reduce this safety concern, project design will provide appropriate left turn tapers, storage length and turn radius provisions. Advance warning signs will be provided alerting motorists of the weigh station and truck operations. Additionally, location of the access to the weigh station will be developed to ensure required sight distance criteria are met.

2.0 PURPOSE AND NEED

This section of US Highway 93 located in Missoula and Lake counties (Missoula to Polson) is one of the most heavily traveled commercial vehicle corridors in the state. Currently, there is no permanent commercial vehicle enforcement on US Highway 93. The Lolo Weigh Station, which was located between Lolo and Missoula, Montana, was closed in 1995. The purpose of the proposed new weigh station is to re-establish a permanent enforcement presence on US Highway 93. This enforcement presence is important because a weigh station directly reduces the amount of damage to Montana's highways caused by overweight trucks. In a recent MDT study, closure of a permanent weigh station resulted in a 19 percent increase in the number of overweight trucks.

The enforcement presence of a weigh station also reduces the possibility that unsafe vehicles and drivers will be traveling on Montana's highways. Although commercial vehicle safety and driver safety are of major importance on all facilities, heavily travelled corridors such as US Highway 93 become more susceptible to unsafe travel due to high traffic volumes.

Additionally, the proposed US Highway 93 weigh station will service trucking industry customers located in and around Missoula. The US Highway 93 weigh station will sell oversize/overweight permits, fuel permits, and annual and trip permits. Currently, the only dependable local source for these services is the MDT district office located on West Broadway in Missoula.

The location of the proposed weigh station must meet requirements associated with installation of automation equipment. Specifically, in order for the WIM equipment to accurately weigh a vehicle, the WIM weight detectors, which are installed directly in the roadbed, must be located where there is less than a two percent (2%) grade. Vehicle acceleration or deceleration can also significantly impact WIM weighing accuracy. The WIM weight detectors must be located far enough from the weigh station so as to ensure that the driver of an overweight vehicle will be able to respond to an electronically generated signed message and safely enter the weigh station as directed. The minimum response distance for this purpose is 460 ± meters (1500 feet) at truck speeds of 95 ± km/hr (60 mph).

Future "full automation" of the proposed US Highway 93 weigh station site must also be considered. A fully automated weight station includes WIM equipment as already discussed. In conjunction with the ability to weigh commercial vehicles at highway speeds using the WIM, the weigh station would be equipped with a computerized database of all "participating" commercial motor carriers and their status regarding required licenses, permits, insurance and

fuel. The weigh station computer and the individual participating truck communicate with one another via a transponder located in the cab of the truck and reading device located on the side of the highway. A fully compliant vehicle is authorized to bypass the weigh station while a non-compliant vehicle would be required to stop. This additional automation function is called AVI, or Automated Vehicle Identification. A minimum distance of 915 ± meters (3000 feet) at truck speeds of 95 ± kph (60 mph) is required for a driver to respond safely to an instruction to enter the weigh station because of a potentially non-compliant situation identified as a result of AVI technology.

The proposed weigh station must be situated on generally flat terrain that will accommodate both the circulation of large commercial vehicles up to approximately 30.5 ± meters (100 feet) in length and the operational facilities noted in Section 1.0. A 2.0-2.8 ± hectare (5-7 acre) parcel of land will be needed to address these needs.

Site topography and alignment of the highway adjacent to the site must provide adequate sight distance so that large commercial vehicles may safely enter and exit the weigh station facility. Design criteria requires approximately 375 ± meters (1230 feet) of intersection sight distance in both directions. A site lacking a clear field of vision will limit the enforcement capabilities of the weigh station officers.

Finally, an appropriate weigh station site will minimize the opportunity for weigh station avoidance. Weigh station avoidance occurs when side roads branching off from the main highway are situated so as to make it convenient for truck drivers to avoid the enforcement presence of the weigh station.

Section 4.0 of this EA provides a detailed description of the proposed facilities.

3.0 SIGHT DISTANCE AND LANE GEOMETRY EVALUATION

Crucial to the development of the proposed site is the function and safety of the adjacent highway system. It is imperative that any selected site meet design criteria relative to sight distance to permit safe vehicular operations. Additionally, use of auxiliary or speed-change lanes on US Highway 93 will further enhance these operations and minimize disruption to through traffic. This section provides an evaluation of these design features.

3.1 STOPPING SIGHT DISTANCE

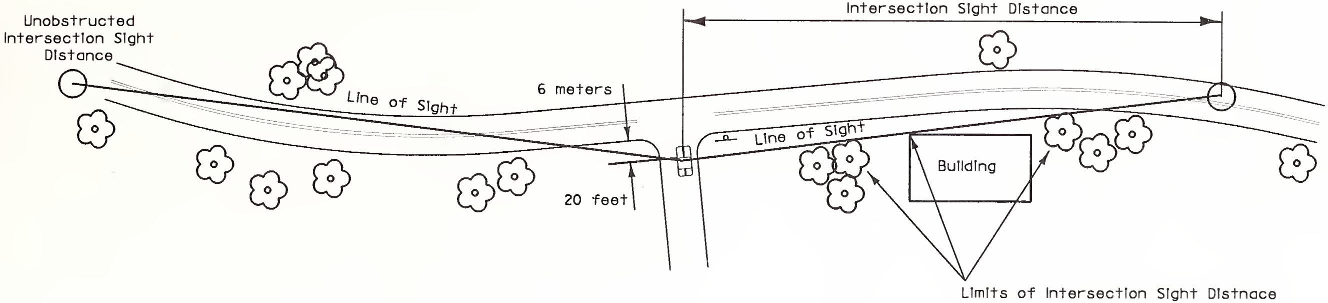
A stopping sight distance evaluation was completed in accordance with *A Policy on Geometric Design of Highways and Streets, AASHTO (Metric) 1994* procedures. Stopping sight distance can be either calculated from empirical data or recorded from plan and profile sheets. The calculated stopping sight distance is the combination of the distance traveled during the period that a driver will perceive and react to an object in the roadway, and the distance required to slow to a stopped condition to avoid hitting the object. *AASHTO* has determined that the average driver will apply the brake within 2.5 seconds of perceiving an object in the roadway, during which time the vehicle will travel some distance before the brake is applied. The recorded stopping sight distance criteria is based on a driver's line of sight, which averages 1070 ± mm (3.5 feet) above the road surface viewing an object 150 ± mm (6 inches) high on the road ahead of the driver (see Figure 3-1).

AASHTO recommends a range for stopping sight distance to be 179.5 meters (minimum) to 246.4 meters (desirable), or 589 to 808 feet. The *MDT Road Design Manual* indicates a stopping sight distance range of 180 to 250 ± meters (590-820 feet). These ranges are obtained assuming that the design vehicle for this study and along this particular classification of roadway is a passenger car traveling at 105 ± kph (65 mph) on wet or slick pavement conditions. It should be noted that stopping sight distances for semi-tractor trailers or other similar vehicles would increase the sight distance ranges to unrealistic design limits. The minimum stopping sight distance value of 180 ± meters (590 feet) as developed by the *MDT Road Design Manual* was utilized as a guide for identifying inadequate stopping sight distance along US Highway 93 for each of the locations of concern. The sites evaluated for stopping sight distance requirements include:

- O'Keefe Site
- Otoupalak Site
- Evaro Site
- Ravalli Site

MCS WEIGH STATION
SIGHT DISTANCE EVALUATION

Intersection Sight Distance



Stopping Sight Distance

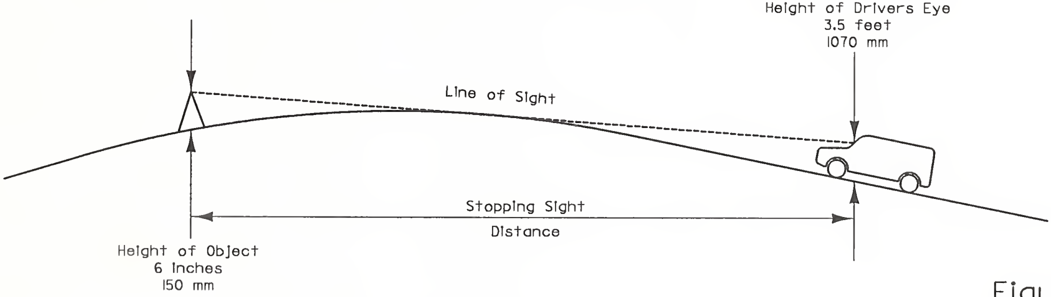


Figure 3-1

Each site was evaluated for 152 ± meters (500 feet) in either direction of an assumed access location to determine the range of stopping sight distance available along the adjacent highway.

As a result of this study, all the sites along US Highway 93 meet the minimum criteria of 180 ± meters (590 feet) . Additionally, all of the proposed sites meet the desirable criteria of 250 ± meters (820 feet) with the exception of the Evaro site. The highway alignment near Evaro does fail to meet the desirable stopping sight distance conditions at more than one location, as well as approaching the minimum stopping sight distance. Within the vicinity of the proposed location, stopping sight distances along US Highway 93 range from 182 to 244 ± meters (600-800 feet).

It should be noted that the posted speed limit of US Highway 93 at Ravalli is 70 ± kph (45 mph). This posted speed limit will actually decrease the required stopping sight distance at this site. However, because the Ravalli site meets the stopping sight distance requirements for 105 ± kph (65 mph) design speed, a stopping sight distance analysis for 70 ± kph (45 mph) was not completed.

3.2 INTERSECTION SIGHT DISTANCE

A Policy on Geometric Design of Highways and Streets, AASHTO (Metric), 1994 states that "intersections should not be situated on a sharp crest vertical curve, just beyond a sharp crest vertical curve, or on a sharp horizontal curve". Where conditions make this planning impractical, "sight distances should be increased, cut slopes should be flattened, and horizontal and vertical curves should be lengthened."

Proper sight distances can greatly reduce the possibilities of conflicts at intersections. Sight distance is directly related to the vehicle's speed, the resultant distance traveled during perception and reaction time of obstacles, and braking. To determine the intersection sight distances required for this project, *A Policy on Geometric Design of Highways and Streets, AASHTO (Metric) 1994*, pgs. 702 - 716, and the *Montana Road Design Manual, MDT*, Section 13, were utilized.

Sight distances for this project were obtained from Figure 13.5E "Intersection Sight Distance - Stop Controlled Intersections (Rural National Highway System)" of the *Montana Road Design Manual, MDT*. Utilizing the maximum design speed of 105 ± kph (65 mph), a recommended minimum intersection sight distance of 375 meters (1230 ± feet) was obtained for flat grades. In the case of the Ravalli site, which is situated in a 70 ± kph (45 mph) speed zone, a

recommended minimum intersection sight distance of 170 meters (560 ± feet) was obtained for flat grades.

Sight distances were evaluated at each of the proposed locations of this project. The locations analyzed for intersection sight distance include:

- O'Keefe Site
- Otoupalak Site
- Evaro Site
- Ravalli Site

Each location was surveyed for intersection sight distance utilizing as-built drawings, aerial photography and through an on-site review.

For intersection sight distance, a vehicle is assumed to be positioned 6 ± meters (20 feet) from the edge of the pavement of the road the vehicle is accessing, and determining the distance to the left and to the right that a driver can actually see down the road, or the drivers line of sight (see Figure 3-1). Through the use of aerial photography provided by the MDT, intersection sight distances could be determined through line of sight. Using assumed access locations, approximate distances for line of sight were determined.

A field reconnaissance was conducted to gain a better understanding of the geometry of the intersections and the surrounding terrain, including a photo and video survey of each of the sites identified for study. This provided a visual representation of the site for future reference and indicated possible areas of concern. Sight obstructions, lanes of travel, roadway widths, travel-way grades and surrounding slopes were identified and noted throughout the photo survey. From this survey, actual sight conditions could be incorporated into the intersection sight distance study. Actual intersection sight distances were recorded as follows:

Intersection Sight Distances, US Highway 93

	Left (Observed)	Left (Required)	Right (Observed)	Right (Required)
O'Keefe	+ 650 m (2133 ft)	388 m* (1273 ft)	+ 650 m (2133 ft)	348 m* (1142 ft)
Otoupalak	640 m (2100 ft)	470 m* (1542 ft)	400 m (1312 ft)	320 m* (1050 ft)
Evaro	400 m (1312 ft)	375 m (1230 ft)	480 m (1575 ft)	320 m* (1050 ft)
Ravalli	470 m (1542 ft)	220 m** (722 ft)	400 m (1312 ft)	170 m (558 ft)

*Corrections in I.S.D. due to grade.

**Required I.S.D. is for 4% grade, actual grade exceeds 6%.

As can be seen from the data presented, Ravalli meets the intersection sight distance requirements to the left and to the right of the proposed site. Intersection sight distance from the Ravalli site left to the intersection of Montana Highway 200 and US Highway 93 is approximately 280 ± meters (920 feet).

Evaro meets the sight distance requirements, but only by a small margin. The field survey revealed that development in the area (buildings, signs, trees, bushes) pose a problem to the left of the site. As this survey was conducted during the winter months, the trees and shrubbery in the area were void of foliage to interrupt a driver's view. Therefore, sight distances at this location can be expected to decrease during the spring, summer and fall months. Trimming or removal of these trees and shrubs may help to maintain existing sight distances. It was also noted that snow removal near and around this site provided some sight distance problems. Periods of heavy snowfall in this area followed by standard snow removal practices will decrease sight distance at this site.

The Otoupalak site demonstrates adequate sight distance. The Otoupalak site could see an increase in sight distance to the right by removing obstructions such as billboards, trees and bushes. As was noted for the Evaro site, the trees and shrubbery could decrease the recorded sight distance at this site during the spring, summer and fall months. Trimming or removal of these trees and shrubs may help to maintain existing sight distances.

The O'Keefe site possesses the most intersection sight distance of all the studied sites. The view from the assumed access south is unobstructed for approximately 1.1 ± km (0.7 mile)

to the top of the hill at Muralt's Truck Stop, and unobstructed to the north for well over 2.0 ± km (1.25 miles).

3.3 LANE GEOMETRY

When undue deceleration or acceleration by leaving or entering traffic takes place directly on the highway traveled way, it disrupts the flow of through traffic and often is hazardous. To improve truck operations and minimize disruption to through traffic on US Highway 93, auxiliary or speed-change lanes will be provided in the vicinity of the weigh station. A speed-change lane is an auxiliary lane primarily for the acceleration or deceleration of vehicles entering or leaving the through traffic lanes. In the northbound direction, a left turn lane will be provided from US Highway 93 for vehicles entering the weigh station. A deceleration/right turn lane is provided for southbound vehicles entering the site. A schematic is provided in Figure 3-2 to further illustrate these additional US Highway 93 facilities. This figure depicts a four-lane highway section, but would be similarly applicable in two-lane sections. Design criteria for the left turn and right turn deceleration lanes are in accordance with Section 13.4.2 of the *Montana Road Design Manual* and *A Policy on Geometric Design of Highways and Streets, AASHTO (Metric) 1994*.

Generally, it is desirable to restrict access within the confines of these auxiliary lanes to reduce potential vehicular conflicts and to ensure these facilities operate as intended. In other words, driveways or other points of access should be minimized within these limits. Although this condition is desirable, existing access conditions and the significant length required in developing these auxiliary lanes may preclude this opportunity.

In an effort to assess the potential impacts associated with the lane geometry as described herein, a site evaluation was completed at each of the proposed locations. Access locations for the proposed weigh station sites are approximate and based upon preliminary evaluations. The following sites were reviewed for further discussion:

- O'Keefe Site
- Otoupalak Site
- Evaro Site
- Ravalli Site

To accomplish these lane improvements, construction along US Highway 93 will be required to increase the cross sectional width of the road at each of the sites. The most significant impacts of this construction would likely be realized at the Ravalli and Evaro sites, where only

MCS Weigh Station
Highway 93 Lane Geometry

(NO SCALE)

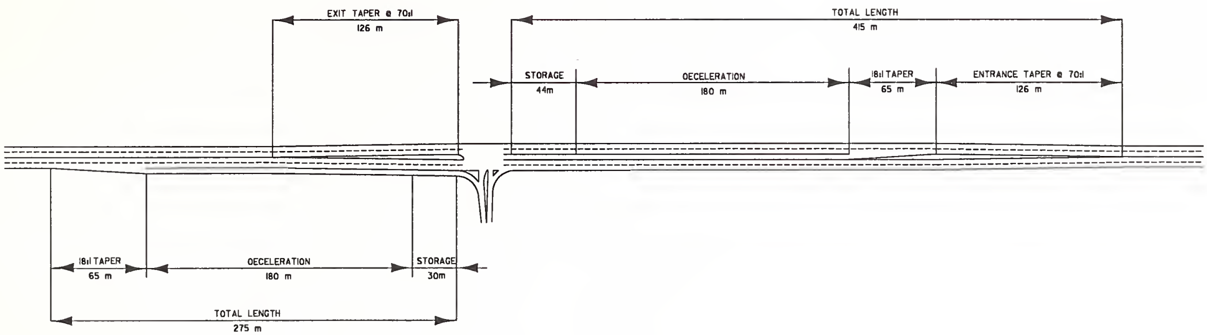


Figure 3-2

two highway lanes currently exist. The Otoupalak site is situated adjacent to a four-lane section of US Highway 93. The O'Keefe site would likely encounter the least impact as a five-lane section currently exists in the vicinity to accommodate left turn movements at Waldo Road/Ladyslipper Lane.

Generally, each of the sites reviewed indicated various accesses, from intersecting roads to minor driveway approaches, within the confines of the proposed auxiliary lanes. The Otoupalak site exhibited the fewest incidence of these intersecting facilities, while the Evaro and Ravalli sites exhibited the most due to the "urbanized" vicinity of these two sites. The O'Keefe site would possibly require special design considerations relative to Waldo Road/Ladyslipper Lane which intersects US Highway 93 immediately south of the proposed site. This could be accomplished by creating an access to Waldo Road rather than to US Highway 93 or a split access (to both US Highway 93 and Waldo Road) to minimize these effects.

3.4 SUMMARY

As a result of the sight distance evaluations, it can be concluded that the O'Keefe, Otoupalak, and Ravalli sites generally meet all the sight distance requirements as stated in this report. The Evaro Site is borderline in meeting all the sight distance requirements. US Highway 93, within this vicinity, meets only the minimum stopping sight distance requirement, and fails to meet the desirable stopping sight distance limits. Additionally, intersection sight distance is met, but by a small margin.

Construction of additional cross sectional width along US Highway 93 will be required to accommodate the proposed lane geometry for access at the weigh station. Existing highway right-of-way appears to be sufficient at each of the sites to accommodate this additional width. Driveways and intersecting access approaches are evident within the confines of the proposed auxiliary lanes at each of the sites evaluated. Final design of the selected alternative will require appropriate measures are taken to ensure these additional operations do not dramatically interfere with the US Highway 93 lane geometry developed for the weigh station.

4.0 ALTERNATIVES UNDER CONSIDERATION

Numerous alternative possible site locations were evaluated in order to identify the most acceptable site for the construction of a new MCS weigh station on US Highway 93. This section of the Environmental Assessment:

- Describes alternatives studied and evaluated in detail in this EA;
- Describes alternatives that were initially considered, but were eliminated from consideration as they do not meet the requirements of purpose and need; and
- Summarizes the action alternatives.

4.1 ALTERNATIVES EVALUATED IN DETAIL

Alternatives studied and analyzed in detail in this document were selected based on engineering and environmental evaluations completed to date by MDT and its consultants.

A matrix evaluation is provided herein to summarize these engineering and environmental reviews. A weighing system from 1 - 5 was utilized to address varying degrees of desirability of each criterion. The following evaluation measures were used:

1 -- Significant problems anticipated, candidate for elimination.

2 -- Less than desirable, some major problems anticipated.

3 -- Average complexity.

4 -- Preferable, minor problems anticipated.

5 -- Highly desirable, no problems anticipated.

Evaluated sites which received a ranking of "1" on any criterion were considered cause for elimination. Results of this matrix is included as follows:

MCS WEIGH STATION SITE MATRIX

Evaluation Criteria	Muralt Site	O'Keefe Site	Otoupalak Site	Evaro Site	Dirty Corner	Ravalli Site
Utilities	3	3	3	2	3	2
Landowner Acceptance	3	4	2	4	5	4
Public Acceptance	4	2	4	3	4	4
Safety	1	4	4	2	4	3
Enforcement Effectiveness	1	5	4	3	1	4
Compatibility with area	5	2	3	3	4	4
Vandalism	2	4	4	2	2	4
Compliance with zoning	1	4	4	4	4	4
Cost	--	3	3	4	--	1
WIM/AVI Compatibility	--	2	3	3	--	1
Customer Service; convenience to Missoula	5	5	4	3	2	2
Layout/Topography	2	3	3	3	4	3
Environmental	--	5	3	2	--	3
Total	* *	46	44	38	* *	39

--	Indicates site not evaluated under respective criteria
* *	Total not computed as site not evaluated in detail

Various traffic volume terminology is used to discuss traffic conditions at each of the sites. Definition of these terms is provided, as follows, for clarification:

> Average Daily Traffic (ADT). The calculation of average traffic volumes in both directions of travel in a time period greater than one day and less than one year and divided by the number of days in that time period.
>
> Design Hourly Volume (DHV). The 1-hour volume in both directions of travel in the design year selected for determining the highway design.
>
> Directional Distribution (DD). The division, by percent, of the traffic in each direction of travel during the DHV or ADT.

4.1.1 The No-Build Alternative

This alternative would consist of 1) not constructing the weigh station at any of the identified potential locations evaluated in this EA or 2) not constructing the weigh station at all. Not constructing a weigh station would negate the ability to monitor compliance of commercial vehicle weights on this very heavily traveled section of US Highway 93. This situation ultimately would result in deterioration of the transportation system and permit unsafe commercial traffic conditions. Additionally, not constructing a new weigh station would result in the additional burden of commercial vehicle licensing and permitting operations to be placed upon the MCS district offices, which are not necessarily tailored to provide this service.

4.1.2 Alternative 2 - O'Keefe Site Located at Milepost 1.23 on US Highway 93

(NOTE: Alternative 1 (Muralt's Truck Stop) is discussed in Section 4.2 as a "no action" alternative.)

Alternative 2 is located about 2.0± kilometers (1.25 miles) north of the intersection of US Highway 93 and Interstate 90 on the west side of US Highway 93. The site occupies the northwest corner of the intersection of US Highway 93 and Waldo Road (the Frenchtown Frontage Road) and is owned by Marwest Properties (see Figure 4-1). Historically, the site has been used for agricultural purposes and is now surrounded by relatively recent residential development. The site includes approximately 2.0± ha (5 acres) of the existing 8.0± ha (20 acres) tract of generally level land, with slopes

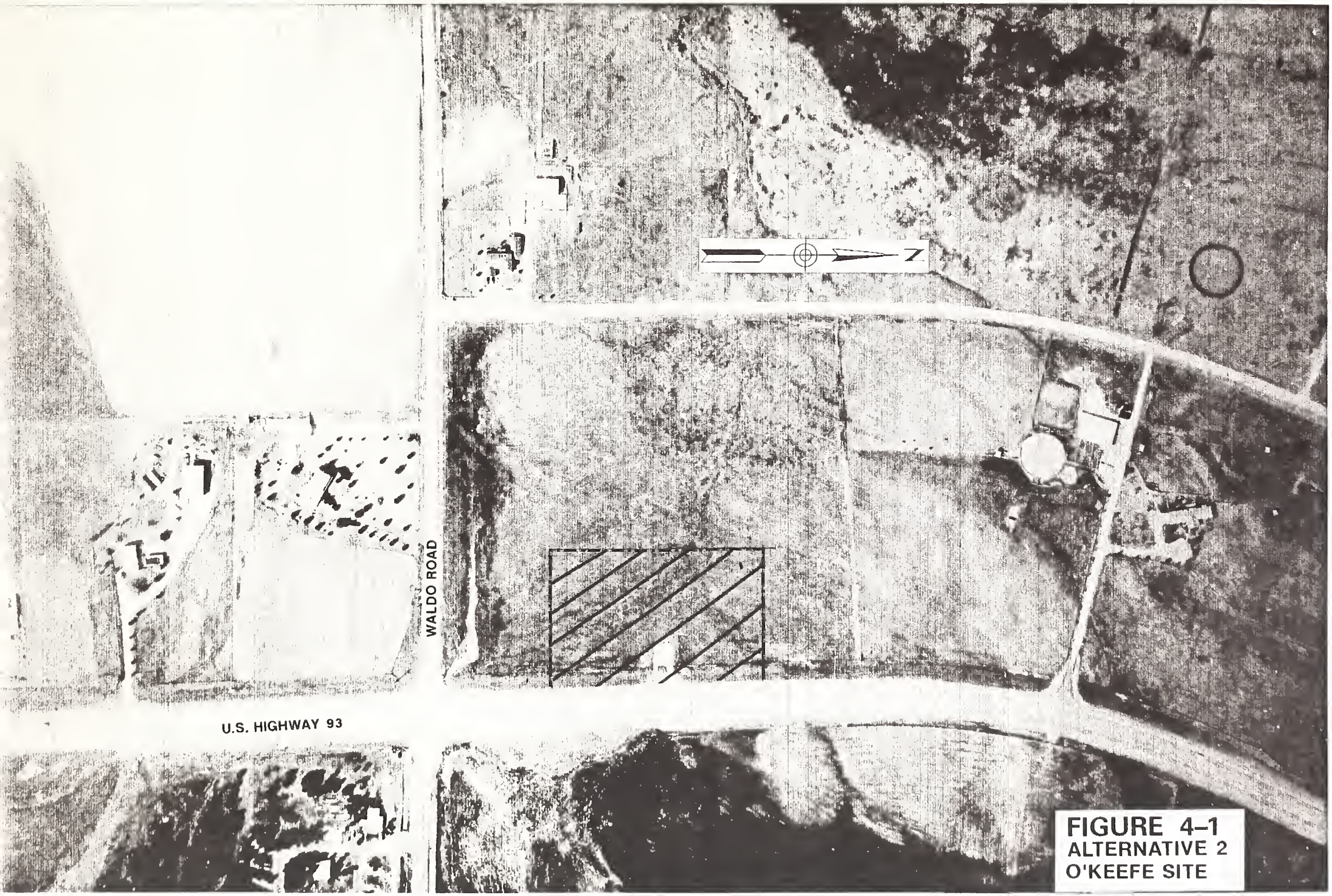


FIGURE 4–1
ALTERNATIVE 2
O'KEEFE SITE

averaging 0-2 percent. The analysis and description of this alternative includes the following:

- **Speed Limits** - The speed limit is 70± kph (45 mph) from I-90 to Milepost 0.09, 90± kph (55 mph) from Milepost 0.09 to 0.49, and reasonable and prudent (95± kph [60 mph] for trucks) from Milepost 0.49 to 26.65. The change from 90 to 95± kph (55 - 60 mph) for trucks occurs 1190± meters (3907 feet) south of this site.

- **Alignment** - The grade along US Highway 93 is 0.94 percent at the site. To the south, it remains at 2.0 percent or less for a distance of 745± meters (2450 feet), increases to 3.0 percent for a distance of 180± meters (600 feet), then increases to 5.9 percent for a distance of 150± meters (500 feet). The grade is less than 2.0 percent for 1110± meters (3650 feet) to the north. A horizontal curve of 190± meters (632 feet) with a radius of 580± meters (1910 feet) is located approximately 275± meters north of the site.

- **Traffic Volumes** - Current average daily traffic volume (ADT) on US Highway 93 in the vicinity of this site is 9150, with projected ADT of 10,800 in 2000 and 21,100 in 2020. Design hourly volume is estimated to be 13.8 percent of the projected ADT. Directional distribution is 50/50 percent. Commercial trucks (those subject to weight restrictions and other MCS regulations) represent 9.9 percent of the total.

- **Advantages** - Major advantages to this site include its close proximity to Missoula users for licensing and permitting and MCS operations. The alignment and speed limits within the area should permit satisfactory installation of a WIM system for screening trucks in advance of the weigh station, in either the northbound or southbound direction. Alignment and speed conditions to the north of the site are also suitable for automating the weigh station. Adequate sight distance is available in both directions in the vicinity of this site.

- **Disadvantages** - Disadvantages to this site include the negative sentiments of nearby residents in locating the weigh station near a developing residential area.Additionally, the distance available to the south for installation of the necessary equipment for fully automating the weigh station to allow WIM and electronic credential verification is slightly less than desirable -- 745± meters (2450 feet) available versus 915± meters (3000 feet) desired.

4.1.3 Alterative 3 - Otoupalak Site Located at Milepost 3.43 on US Highway 93

This site is located about 5.5 ± km (3.5 miles) north of the intersection of US Highway 93 and Interstate 90 on the west side of US Highway 93 and is owned by Ernie and Sue Otoupalak (see Figure 4-2). Historically, the site has been used for agricultural purposes. The site includes approximately 2.0 ± ha (5 acres) of the 3.0 ± ha (8 acres) tract of generally level land, with slopes averaging 0-2 percent. The analysis and description of this alternative includes the following:

- **Speed Limits** - The speed limit is reasonable and prudent (95 ± kph [60 mph] for trucks) throughout the area of this site.

- **Alignment** - The grade along US Highway 93 is 1.79 percent at the site. To the south, it remains at 2.0 percent or less for a distance of 580 ± meters (1900 feet), increases to 2.2 percent for a distance of 245 ± meters (800 feet), then remains less than 2.0 percent for a distance of 1160 ± meters (3800 feet). A horizontal curve 600 ± meters (1970 feet) in length with a radius of 1400 ± meters (4584 feet) is located approximately 200 ± meters (650 feet) south of the site. Another horizontal curve 245 ± meters (810 feet) in length with a radius of 700 ± meters (2292 feet) is located approximately 1585 ± meters (5200 feet) further south.

  To the north, the grade remains at 2.0 percent or less for a distance of 345 ± meters (1130 feet), varies from 2.4 to 2.9 percent for a distance of 570 ± meters (1870 feet), then remains at 2.0 percent or less for a distance of 330 ± meters (1090 feet). A horizontal curve 260 ± meters in length with a radius of 500 ± meters is located approximately 445 ± meters (1460 feet) north of the site. Another horizontal curve 245 ± meters (803 feet) in length with a radius of 775 ± meters (2547 feet) is located approximately 335 ± meters (1100 feet) further north.

- **Traffic Volumes** - Current average daily traffic volume (ADT) on US Highway 93 in the vicinity of this site is 9150, with projected ADT of 10,800 in 2000 and 21,100 in 2020. Design hourly volume is estimated to be 13.8 percent of the projected ADT. Directional distribution is 50/50 percent. Commercial trucks (those subject to weight restrictions and other MCS regulations) represent 9.9 percent of the total.

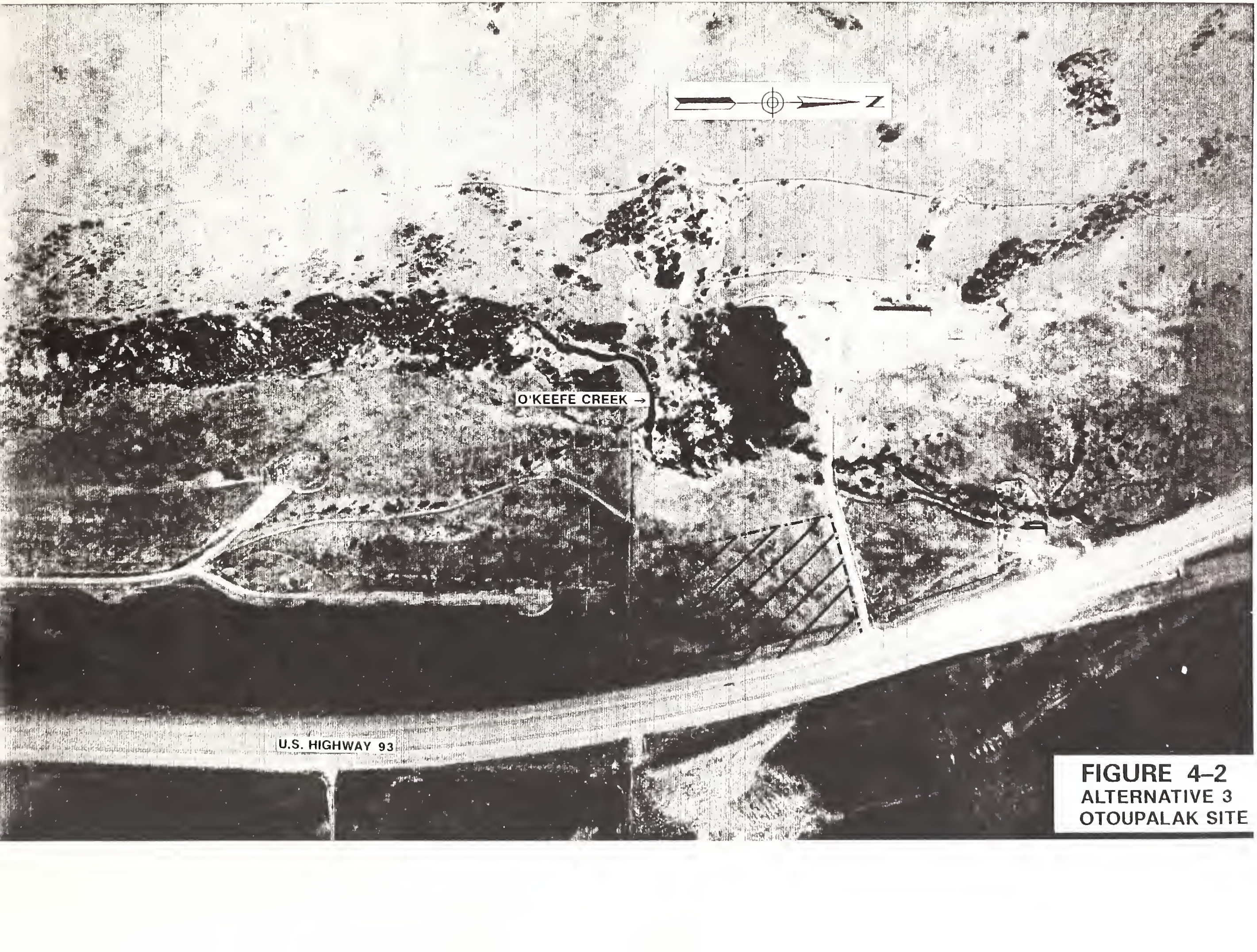


FIGURE 4–2
ALTERNATIVE 3
OTOUPALAK SITE

- **Advantages** - An advantage of this site is its relatively close proximity to Missoula users. The alignment within the area of the site should permit satisfactory installation of a WIM system for screening trucks in either the northbound or southbound direction. Also, the distance available in both directions for installation of the necessary equipment for fully automating the weigh station to allow WIM and electronic credentials verification is adequate. Appropriate sight distance is available in either direction of this site.

- **Disadvantages** - Disadvantages include the potential disruption of homes located to the west of the site. Current access from US Highway 93 to these homes crosses the subject site. In addition, the soil on the site has been classified as prime farmland by the Natural Resources Conservation Service (NRCS). Due to the highway alignment north of this site, more extensive communications equipment and cost will be required for fully automated WIM and electronic credential verification operations.

4.1.4 Alternative 4 - Evaro Site Located at Milepost 6.62 on US Highway 93

This site is located about 10.5± km (6.5 miles) north of the intersection of US Highway 93 and Interstate 90 on the west side of US Highway 93 and is owned by Don Klepper (see Figure 4-3). The site is located on the immediate south side of the unincorporated community of Evaro, Montana. Historically, the site has been used for agricultural purposes. The site includes approximately 2.0± ha (5 acres) of the 4.8± ha (12 acres) tract of generally level land, with a slight (2-5%) slope to the south and east. The analysis and description of this alternative includes the following:

- **Speed Limits** - The speed limit is reasonable and prudent (95± kph [60 mph] for trucks) throughout the area of this site.

- **Alignment** - The grade along US Highway 93 is 0.05 percent at this site. It increases to 2.2 percent 30± meters (100 feet) south and continues to a maximum of 6.1 percent at 780± meters (2560 feet), after which it decreases to 2.0 percent 1100± meters (3600 feet) south of the site. To the north, it remains less than 2.0 percent for a distance of 1950± meters (6400 feet). A horizontal curve 480± meters (1577 feet) in length with a radius of 875± meters (2870 feet) is located approximately 1035± meters (3400 feet) north of the site.

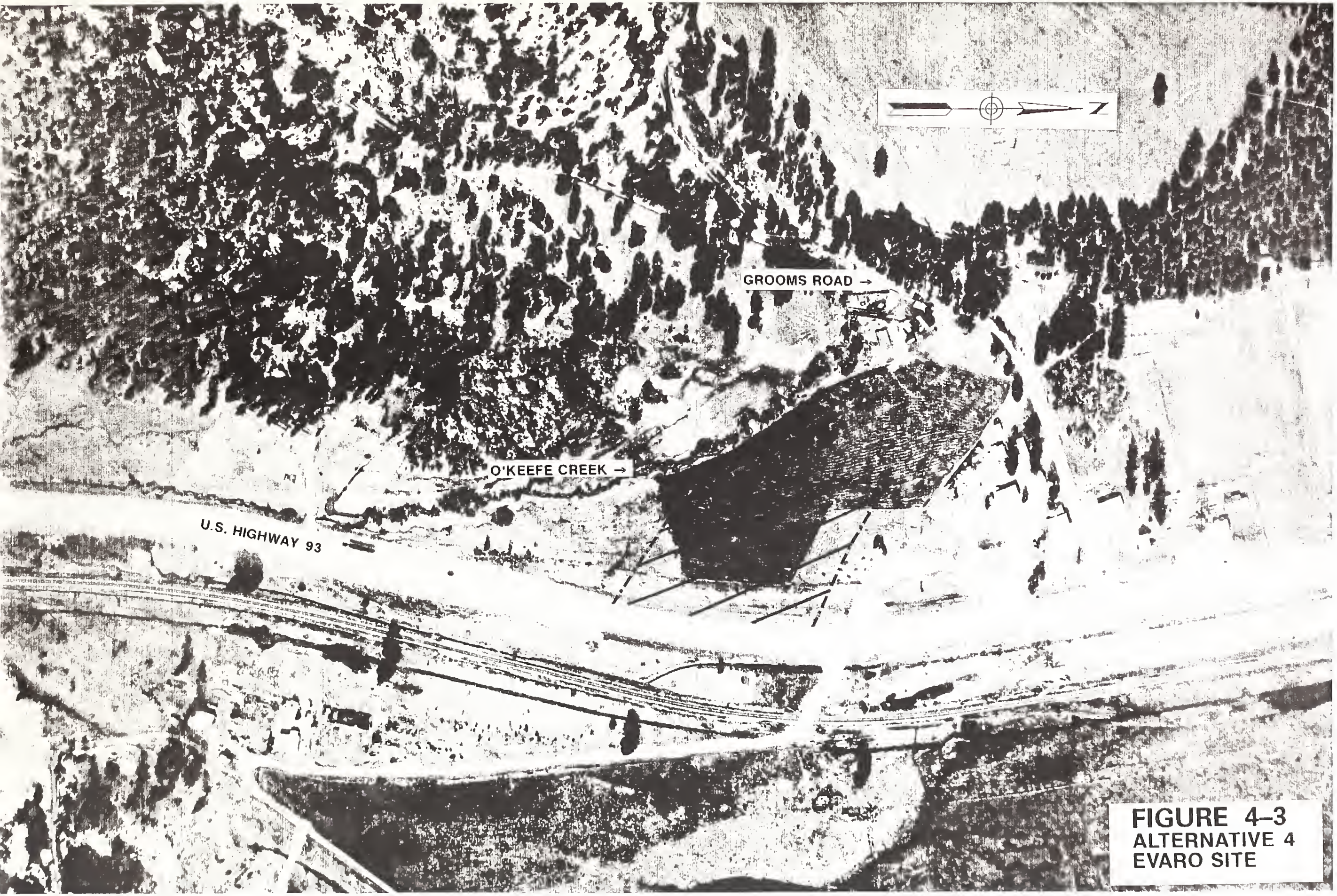


FIGURE 4–3
ALTERNATIVE 4
EVARO SITE

- **Traffic Volumes** - Current average daily traffic volume (ADT) on US Highway 93 in the vicinity of this site is 9150, with projected ADT of 10,800 in 2000 and 21,100 in 2020. Design hourly volume is estimated to be 13.8 percent of the projected ADT. Directional distribution is 50/50 percent. Commercial trucks (those subject to weight restrictions and other MCS regulations) represent 9.9 percent of the total.

- **Advantages** - Advantages of this site include its relatively close proximity to Missoula users. The alignment with the area of the site should permit satisfactory installation of a WIM system for screening trucks in either the northbound or southbound direction. Also, the distance available in both directions for installation of the necessary equipment for fully automating the weigh station to allow WIM and electronic credentials verification is adequate. Cost of these facilities is also less expensive for this alternative than the others considered.

- **Disadvantages** - Disadvantages include the presence of wetlands on a substantial portion of this site and cultural resources issues. Additionally, the adjacent highway in this vicinity meets only minimum requirements for stopping sight distance. Intersection sight distance at the proposed access location is somewhat less than desirable, as well.

4.1.5 Alternative 6 - Ravalli Site Located at Milepost 27.23 on US Highway 93 and Within the Community of Ravalli

(NOTE: Alternative 5 (Dirty Corner) is discussed in Section 4.2 as a "no action" alternative.)

Alternative 6 is located about 43.8 ± km (27.25 miles) north of the intersection of US Highway 93 and Interstate 90 on the west side of US Highway 93 and is owned by Montana Rail Link (see Figure 4-4). The site is located with the community of Ravalli, Montana approximately 0.4 ± km (0.25 mile) south of the intersection of US Highway 93 and Montana Highway 200. Historically, the site has been used for agricultural purposes. The site includes approximately 2.0 ± ha (5 acres) of a 8.1 ± ha (20 acres) tract of generally flat land with slopes averaging 0-2 percent. The analysis and description of this alternative includes the following:

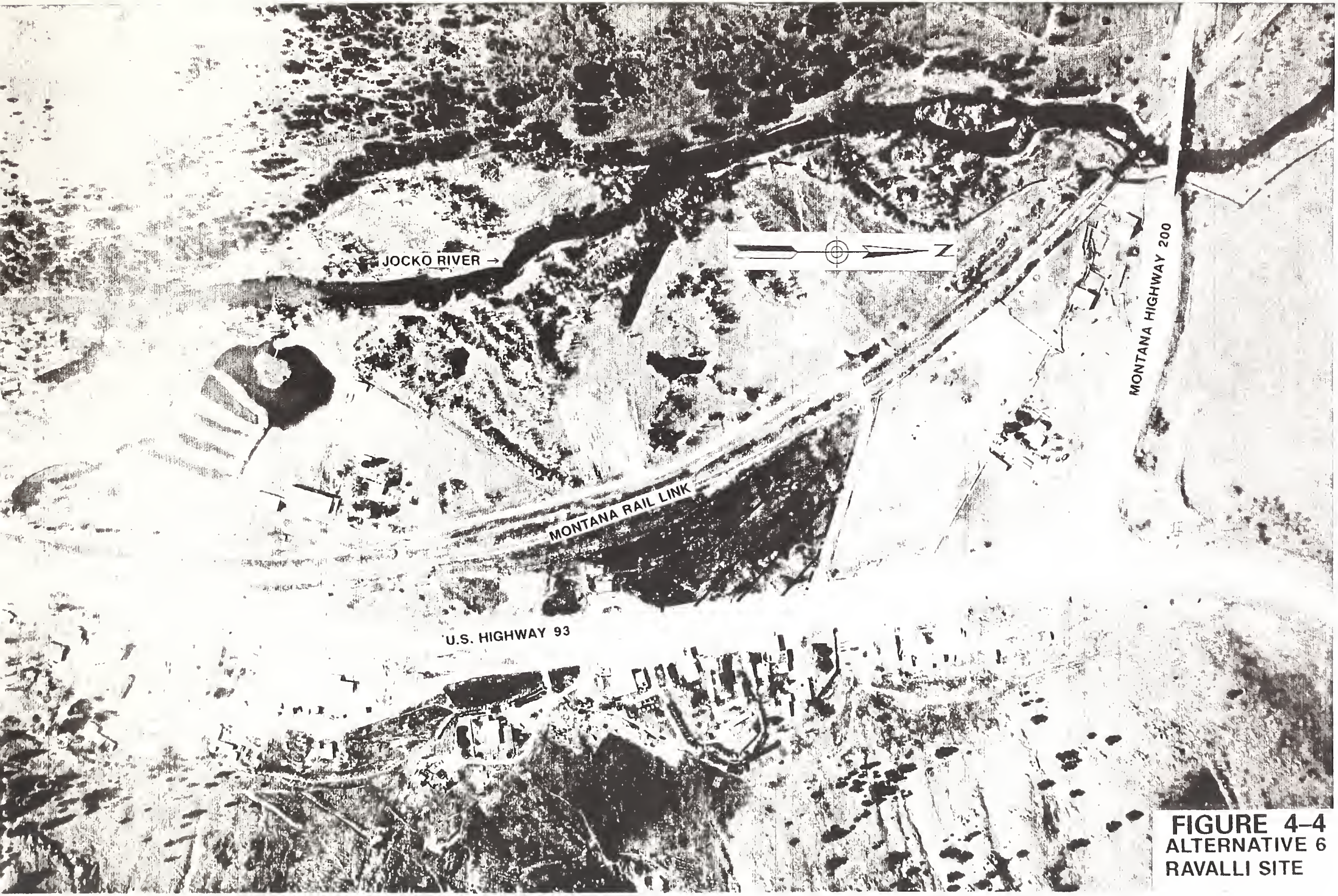


FIGURE 4–4
ALTERNATIVE 6
RAVALLI SITE

- **Speed Limits** - The speed limit on US Highway 93 is reasonable and prudent (95 ± kph [60 mph] for trucks) from the south to a point 935 ± meters (3062 feet) from the site where it decreases to 70 ± kph (45 mph) and remains to a point 1000 ± meters (3274 feet) north of the site. The speed limit on Montana Highway 200 is reasonable and prudent (95 ± kph [60 mph] for trucks) from US Highway 93 to the west.

- **Alignment** - The grade along US Highway 93 is 0.08 percent at the site. To the south, it remains at 2.0 percent or less for a distance of 820 ± meters (2700 feet), increases to 2.7 percent for a distance of 245 ± meters (800 feet), then remains less than 2.0 percent for a distance of 550 ± meters (1800 feet). A horizontal curve 350 ± meters (1157 feet) in length with a radius of 1165 ± meters (3820 Feet) is located approximately 150 ± meters (500 feet) south of the site. Another horizontal curve 90 ± meters (87 feet) in length with a radius of 500 ± meters (1637 feet) is located approximately 915 ± meters (3000 feet) further south.

  To the north, the grade remains less than 2.0 percent for a distance of 180 ± meters (600 feet), then increases to more than 6.0 percent for a distance of 2470 ± meters (8100 feet). A horizontal curve 370 ± meters (1219 feet) in length with a radius of 290 ± meters (955 feet) is located approximately 490 ± meters (1600 feet) north of the site.

- **Traffic Volumes** - Current average daily traffic volume (ADT) on US Highway 93 in the vicinity of this site is 6870, with projected ADT of 7850 in 2000 and 15,300 in 2020. Design hourly volume is estimated to be 13.8 percent of the projected ADT. Directional distribution is 50/50 percent. Commercial trucks (those subject to weight restrictions and other MCS regulations) represent 13.6 percent of the total.

- **Advantages** - The sole advantage of this site is the fact that it is located in the "urbanized" area of Ravalli. The addition of a weigh station in the community would not result in the development of a unique commercialized activity.

- **Disadvantages** - A disadvantage of this site is the significant distance (approximately 48 ± km [30 miles]) from Missoula. Although alignment within the area should permit satisfactory installation of a WIM system for screening northbound truck traffic, significant horizontal and vertical alignment north of

the site would require extensive communications installation to monitor southbound traffic. The intersection of Montana Highway 200 approximately 0.4 ± km (0.25 mile) north of the site would require installation of additional WIM equipment to screen trucks from the north. These problems would preclude cost-effective installation of the necessary equipment for automation of the weigh station for the southbound direction. A further consequence of the horizontal and vertical alignment conditions to the north is inadequate intersection sight distance at this location.

4.2 ALTERNATIVES NOT EVALUATED IN DETAIL

The following alternatives were not evaluated in further detail for the reasons provided.

- **Alternative 1:** Muralt's Truck Stop Site located at Milepost 0.5 on US Highway 93.
- **Alternative 5:** Dirty Corner Gravel Pit Site located at Milepost 15.8 on US Highway 93.

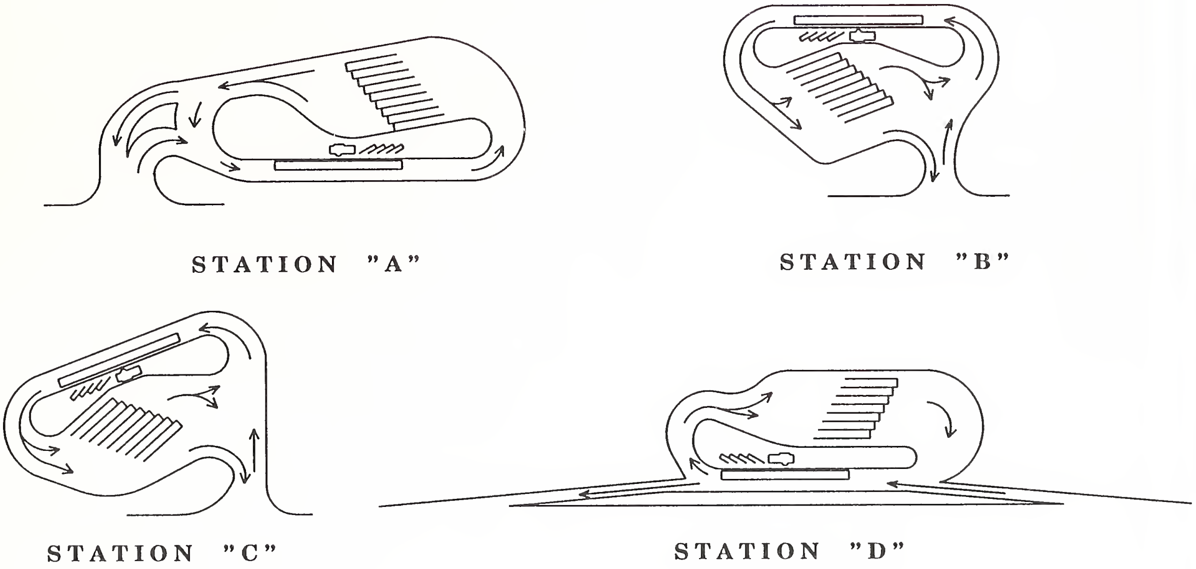
Alternative 1 is not feasible due to the already congested confines of this site, safety issues and enforcement effectiveness. A high level of trucking activity already occurs at this location. Additionally, it would be difficult to locate a site due to existing facilities present in the area, as well as, poor sight distance along US Highway 93 in this vicinity.

Alternative 5 is not feasible due to the potential for a by-pass route around the proposed site via a county road. This condition further negates enforcement effectiveness if full automation of WIM is achieved.

4.3 SUMMARY OF ACTION ALTERNATIVES

Each of the Action Alternative sites is situated on relatively undeveloped parcels of privately-owned land. It is anticipated that a weigh station facility would easily be accommodated within the confines of any of these alternatives. Figure 4-5 provides a generalized conceptual plan of the proposed weigh station facility. It must be emphasized this is a conceptual plan only -- a final engineering design will be developed for the selected weigh station site.

CONCEPTUAL DESIGN OPTIONS



STATION "A"

STATION "B"

STATION "C"

STATION "D"

Figure 4-5
Conceptual MCS Weigh Station Design Options

Appropriate environmental review and surveys were performed for the four (4) Action Alternatives for the construction of a new MCS Weigh Station on the west side of US Highway 93 between Ravalli and the intersection of US Highway 93 and Interstate 90.

5.0 AFFECTED ENVIRONMENT AND IMPACTS

5.1 HAZARDOUS MATERIALS

An environmental consultant was retained to review available public records related to hazardous/regulated substance incidents or releases within the proposed project area. The objective of the hazardous materials records review is to identify potential areas within a proposed construction project where contaminants may be encountered. Conclusions are based on a review of available federal, state and local public records of reported or suspected spills or releases of regulated substances. Direct contact was made with the Montana Department of Environmental Quality (MDEQ) to review related records and files. In addition, the consultant conducted a field reconnaissance of each of the action alternative sites to visually inspect each site for surface physical evidence of past or present releases of regulated materials. Such information can be used by project designers to alert project owners and bidders of special precautions which may be necessary during construction. This consultant's report is attached as Appendix A.

Based on the consultant's review of available public records, there appears to be no indication of contaminated soils or groundwater in the vicinity of any of the action alternative sites. An MDEQ report of contaminated subsurface materials at a former underground fuel storage tank located immediately south of the Ravalli Site (Alternative 6) was determined to be the result of minor spills or overfills and the site was remediated. There is no indication of migration of contaminants onto the Ravalli Site property. Other reported leaking USTs in the general area of the Ravalli Site have either been cleaned up or were located at a distance from the site which would eliminate any concerns about contaminant migration. There is no reason to suspect that contaminated soils or ground water exist at or near any of the action alternative sites which would preclude the construction or operation of the weigh station. This conclusion is based on a review of available public records and does not consider unreported or unknown spills or releases of regulated materials.

5.2 CULTURAL RESOURCES

A cultural resources consultant was retained to conduct a records review and pedestrian survey of the action alternatives for the possible existence of cultural resources. The work was conducted in two phases: Phase I included a preliminary field review and background research of all potential sites and Phase II included an intensive inventory of the action alternatives. The complete Cultural Resources Report is found

in Appendix B. Following is a summary of the findings of the cultural resources survey of the action alternatives.

Alternative 2 -- O'Keefe Site

Review of the General Land Office (GLO) survey plats showed the area of Alternative 2 as being immediately north of the intersection of the "Missoula Mills to the Jocko Valley" Road and the then-major westbound route to Frenchtown. A pedestrian survey of the O'Keefe Site was conducted in July 1996. Although miscellaneous, non-diagnostic glass and metal roadside debris was located along the eastern margin of the site (along US Highway 93), survey transects over the area did not identify any cultural resource sites. Alternative 2 does not contain previously recorded cultural resource properties or culturally sensitive locations identified by the Flathead and Kootenai Culture Committees.

Alternative 3 -- Otoupalak Site

Review of the GLO survey showed the area of Alternative 3 as being bisected by the "Missoula Mills to the Jocko Valley" Road. The site's location on either side of this abandoned road indicates that roadside litter could be present. In addition, any evidence of the road itself could be considered a cultural property and require documentation. The site's location along the valley bottom and near a drainage make it a possible candidate for the presence of aboriginal cultural materials. The Flathead and Kootenai Culture Committees claim Alternative 3 is near culturally sensitive areas identified through Native American oral history. A field survey of the site was not conducted because access to the property was denied by the property owner.

Alternative 4 -- Evaro Site

Two previous cultural resource surveys were conducted in the general area of Alternative 4 and a portion of the site was surveyed in 1990. Three sites were identified in the area and are on file with the Montana State Historical Preservation Office (SHPO). However, none of these sites are located within boundaries of Alternative 4. Review of GLO survey plats showed the area of Alternative 4 as possibly being within the platted area of the community of Evaro, but showed no improvements. A later GLO survey plat also showed no cultural features. A pedestrian survey was conducted in July 1996 on that portion of Alternative 4 which was not previously surveyed. This survey did not reveal any cultural resource sites. The

Flathead and Kootenai Culture Committees have indicated that two culturally-sensitive sites identified through oral history (including a burial location) are located within one-quarter mile of Alternative 4. In addition, native oral history confirms the use of the area by members of the Flathead and Kootenai Tribes. Construction of the weigh station at this location would be a direct visual impact to these sites.

Alternative 6 -- Ravalli Site

Five previous cultural resource surveys have been conducted in the general area of Alternative 6 including one survey (1986) which completely covered the proposed site. The only cultural resource feature located within the boundaries of Alternative 6 has since been removed. This feature was a warehouse associated with the Flathead Irrigation Project. Review of GLO survey plats showed Alternative 6 as being within the Northern Pacific Railroad's "Depot Grounds" or "Station Grounds." Although several buildings were shown in the vicinity, only the depot may have been included in the proposed weigh station area and this depot building has been long since removed. The Flathead and Kootenai Culture Committees have indicated they would prefer the weigh station not be located on the Reservation, although Alternative 6 would pose fewer overall concerns.

SHPO Concurrence

A copy of the Cultural Resources Report for this project was provided to and reviewed by the SHPO. Based on their review of the documentation, the SHPO agreed that there do not appear to be historic properties within the proposed action alternative sites. A copy of the SHPO's official reply to MDT, dated February 6, 1997, is included in Appendix B.

5.3 THREATENED OR ENDANGERED SPECIES

Threatened and endangered species include those species listed or proposed for listing by the US Fish and Wildlife Service (USFWS) as threatened or endangered. Under Section 7 of the Endangered Species Act, as amended, activities conducted, sponsored or funded by federal agencies must be reviewed for their effects on species federally listed or proposed for listing as threatened or endangered.

The USFWS 1994 distribution map and 1995 list by county were reviewed relative to the distribution of listed and proposed threatened/endangered species in the project

vicinity. The November 19, 1996 USFWS statewide list of threatened/endangered species, which functions as the official list of such species to be considered in connection with highway projects not requiring preparation of an EIS, was also consulted. Additionally, a request for information pertaining to known locations of endangered, threatened and sensitive plant and animal species in the project area was sent to the Montana Natural Heritage Program (MNHP) on February 26, 1996. Based on these lists, it was determined that the following threatened or endangered species may occur in the project area: bald eagle (*Haliaeetus leucocephalus*: threatened); peregrine falcon (*Falco peregrinus*: endangered); grizzly bear (*Ursus arctos*: threatened); and gray wolf (*Canis lupus*: endangered).

A Biological Resources Report (BRR) was prepared (MME Corp, 1996) which examined the effects of the proposed project relative to threatened/endangered species and other biological resources. A copy of the BRR is provided in Appendix C. It was the determination of the BRR that implementation of the proposed action on any of the four action alternative sites would not effect the bald eagle or peregrine falcon. Implementation of the proposed action on Sites 2, 3 or 6 would not effect the gray wolf or grizzly bear. Construction of the weigh station on Site 4 is not likely to adversely effect the gray wolf or grizzly bear. Results of the analysis are summarized below in Table 5.1.

Table 5.1 - Threatened/Endangered Species Summary

Species	Status	Primary Occurrence in Project Area	Primary Habitat Affected	Determination of Affect
Bald eagle	threatened	migrant, no known nesting, possible wintering	none	no affect - all alternatives
Peregrine falcon	endangered	migrant, no known nesting	none	no affect - all alternatives
Gray wolf	endangered	transitory use in general Evaro area near Alt. 4	none	no affect - Alternatives 2,3 & 6 not likely to adversely affect Alternative 4
Grizzly bear	threatened	transitory use in general Evaro area near Alt. 4	none	no affects - Alternatives 2,3 & 6 not likely to adversely affect Alternative 4

5.4 WETLANDS

Numerous streams occur along the US Highway 93 corridor between the Interstate 90/US Highway 93 intersection and Ravalli. These include O'Keefe Creek, Frog Creek, Finely Creek, Schley Creek, East Fork Finely Creek, Agency Creek, Jocko River, (Jocko) Spring Creek and several unnamed drainages. Wetlands are associated with many of these streams, drainages and seeps and also occur in roadside ditches along the highway corridor.

In conjunction with the Biological Resources Report described in Section 5.3 above, wetlands were preliminarily identified using National Wetland Inventory maps. With the exception of Alternative 3, on which access was denied, all the action alternative sites were examined for wetland vegetation during the field reconnaissance in accordance with the 1987 US Army Corps of Engineers Wetlands Delineation Manual. The wetland indicator status of vegetation was derived from the National List of Plant Species that Occur in Wetlands: Northwest (Region 4).

No streams or wetlands occur on or immediately adjacent to the O'Keefe Site (Alternative 2) or the Ravalli Site (Alternative 6). The Jocko River occurs approximately 0.2 ± km (0.1 mile) south of the railroad grade and access road that form the southern boundary of Alternative 6.

Both the north and south portions of the Otoupalak Site (Alternative 3) are traversed by O'Keefe Creek, which is bordered by an extensive shrub riparian/wetland fringe. Based on the field reconnaissance from the US Highway 93 right-of-way and aerial photograph interpretation, forested and scrub/shrub wetlands were mapped on this property in immediate association with O'Keefe Creek and an approximately 0.4 ± ha (1-acre) pond in the southwest portion of the property. Due to access denial, wetlands could not be conclusively delineated during the reconnaissance survey. As observed from the highway right-of-way, no wetlands are expected on the south or north halves of the property between the highway and the O'Keefe Creek wetlands as these areas were obviously dominated by upland vegetation species. Should the wetlands be affected by construction of the weigh station at this site, only indirect impacts would be anticipated.

O'Keefe Creek and its associated riparian/wetland fringe traverse the Evaro Site (Alternative 4) from north to south along the west edge of a large pasture. Three wetlands were identified on or adjacent to Alternative 4. Wetland 4-1 consists of the riparian/wetland fringe along O'Keefe Creek and an associated 2.0 ± ha (5-acre) wet meadow in the south portion of the property. Wetlands 4-2 and 4-3 occur within excavated ditches along the east side of US Highway 93 between the highway and a railroad grade. Depending on the configuration of the weigh station facility, portions of Wetland 4-1 could be impacted by construction of the weigh station at this location.

Specific facilities layouts have not been designed for each of the individual action alternative sites, However, based on approximate site boundaries presented in Figures 4-1, 4-2, 4-3 and 4-4 and the positions of identified wetlands (at sites that contain

them), the following wetland impact areas are estimated relative to the action alternative sites:

Alternative Site # and Name	Approximate Wetland Impact Area
2: O'Keefe Site	None
3: Otoupalak Site	None
4: Evaro Site	0.10 acre (0.04 ± ha)
6: Ravalli Site	None

No wetland impacts would occur at Sites 2 or 6 regardless of which site layout would be employed because no wetlands occur at either of these sites. Wetland impacts at Sites 3 and 4, however, may vary slightly depending on site-specific designs and turn lane requirements at the vicinity of these sites.

Any compensatory wetland mitigation required in conjunction with unavoidable wetland impacts resulting from construction on Sites 3 or 4 would be accomplished in compliance with the April 18, 1996 *Interagency Operating Procedure for the Conservation of Wetland Resources Associated with Transportation Construction Projects in the State of Montana*. All Clean Water Act Section 404 permit conditions, as well as Section 401 water quality certification and Montana Stream Protection Act conditions, and any additional state or federal water quality requirements/conditions will be complied with. General measures to be followed to minimize disturbance of wetlands and other waters of the United States during construction of the proposed project are discussed in the Biological Resources Report in Appendix C.

5.5 AIR QUALITY

All of the action alternative sites are located in unclassified/attainment air sheds of Montana under 40 CFR 81.327, as amended. As such, a project at any of the proposed action alternative sites is not covered by the U. S. Environmental Protection Agency's final rule of November 24, 1993 on air quality conformity. Therefore, the proposed project complies with Section 176(c) of the Clean Air Act (42 U.S.C. 7521(a)), as amended.

During construction of the weigh station at any action alternative site, mitigative measures such as sprinkling would be taken to control dust emissions from heavy equipment operation.

It is noted that all of the action alternative sites, and particularly the Evaro Site (Alternative 4), are generally upwind from the Rattlesnake Wilderness Area -- Lolo National Forest. The effect of construction and operation of a weigh station at any of the action alternative sites on the wilderness area should not be significant.

Operation of the weigh station will produce some new air emissions (diesel exhaust and particulates) as a result of commercial truck deceleration into, idling at, and acceleration from the weigh station. These emissions will be locally limited and insignificant regardless of the action alternative selected. Successful implementation and operation of the WIM system has the potential for up to a 41 percent reduction in the number of trucks which must be stopped for static scale weight and credentials verification each day. With operation of the WIM system, the air emissions will also be reduced by up to 41 percent.

5.6 SOILS AND GEOLOGY

The geology and derivative soils of northwestern Montana are dominated by hard fine-grained metasediments known as the Belt Series. An assessment of the soil types and conditions in the proposed project area was prepared from a geologic and soils parent material assessment of western Montana. This investigation shows eroded remnants of volcanic ash, loess, Glacial Lake Missoula sediments and soft tertiary valley-fill sediments overlying the Belt Series bedrock in various locations in the project area (Veseth, Montagne, 1980). The Belt Series is a very thick geologic unit composed mainly of dull fine-grained clastic (non-organic sediments) rocks such as argillites, quartzites and carbonate rocks.

Soil layers over the bedrock can generally be identified throughout western Montana. The topsoil is generally a shallow layer of organic duff overlaying a 150 to 203 ± mm (6-8 inch) veneer of volcanic ash and loess, derived from volcanic eruptions in Washington. While spotty at lower elevations, the ash layer generally has not eroded away at higher elevations like the Evaro Site. Loess, a clayey silt, can generally be found scattered over lower elevation terraces. Benches, terraces and hilly lowlands composed of soft tertiary valley-fill sediments have been formed from a combination of forces during the uplifting of the Mission Range and free-flowing streams such as the prehistoric Jocko River which flows near the Ravalli Site. Glacial Lake Missoula sediments (lacustrine silts) are found below the high-water elevation of the prehistoric lake at the O'Keefe Site and Otoupalak Site (Gooby, 1995).

Soils vary from site to site but the soil and subsurface materials found at the action alternative sites are virtually the same as described above. The erosion potential of the surficial sediments is generally moderate to high. Precautions to minimize or control erosion will be installed concurrent with any construction.

5.7 SOCIAL AND ECONOMIC

Construction and operation of the proposed weigh station at any of the action alternative sites would have negligible effect on the long-term social and economic conditions of the area. The short-term socioeconomic benefit of a construction project would provide a two to four month period projected to build the facility. Most of the construction materials could be obtained locally. There would be no significant changes in population, jobs, property ownership, poverty status, community services, unemployment or subdivision development associated with construction of a weigh station at any of the action alternative sites.

A weigh station would provide a positive monitoring and compliance condition with respect to enforcing commercial vehicle weight restrictions and traffic safety. Construction of a new weigh station might result in a short-term disruption of local traffic patterns during actual construction at any of the action alternative sites. However, construction would be occurring outside of the roadway and disruption of normal traffic flow would be minimal, minor and temporary.

Commercial traffic patterns in the area would remain relatively constant since natural resources generate a major portion of the local traffic that is required to stop at a weigh station. Log and chip hauling, building products, livestock, fuel and agricultural products are expected to remain consistent with existing trends. Seasonal traffic on US Highway 93 does increase due to the influx of tourists and recreational travelers in the summer and winter months with destinations of Glacier National Park and Big Mountain Ski Area near Whitefish, MT. However, the increased traffic is generally the type that is exempt from having to stop at a weigh station.

Highway-oriented businesses may benefit from construction of a weigh station at any of the action alternative sites. Traffic-serving businesses such as fueling facilities, convenience stores, lodging, food services and tourism-specialty stores might take advantage of another “stopping point” for commercial traffic. However, the location of all of the action alternative sites in proximity to existing residential, commercial and

industrial facilities concentrated on US Highway 93 in Missoula and in the towns to the north would not likely present a sole or stand-alone site for businesses.

5.8 RIGHT-OF-WAY AND LAND USE

All of the action alternative sites are located west of U. S. Highway 93, scattered from the junction of Interstate 90 northward to the junction of Montana Highway 200. All of the action alternative sites are owned by private entities. Only the Ravalli Site (Alternative 6) is located within the boundary of the Flathead Indian Reservation. It would be necessary to either purchase the property of the selected site or obtain the appropriate right-of-way agreements and/or easements from respective landowners prior to starting construction of the project.

The project corridor is utilized for light commercial, residential, recreational, agricultural and ranching development. US Highway 93 is the primary north/south route from Interstate 90 to the Flathead/Glacier National Park area. In addition, the surrounding lands are utilized as rangeland and private and national forest land. A railroad corridor is located parallel to US Highway 93 through the northern portion of the corridor. Neither Lake nor Missoula County Comprehensive Land Use Plans dictate zoning restrictions, subdivision requirements or construction specifications for a weigh station (Tressler, Hunnakko, 1996).

A new weigh station would encompass approximately 2.0 ± ha (5 acres) as conceptually described in Figure 3-5. The selected action alternative site would be accessed from US Highway 93 by auxiliary lanes. The weigh station would include a right-of-way sufficient to enclose the station structures, fencing, parking facilities, widening the highway to accommodate auxiliary lanes, and the WIM signalization technology equipment. Utilities such as telephone and power are accessible from existing utility right-of-ways at all of the sites. Accommodations and permits for potable water, storm water drainage and sanitary facilities would have to be arranged through the local county and state regulatory authorities (Tressler, Hunnakko, 1996).

5.9 CONSTRUCTION

Construction related activities at any of the action alternative sites will result in some short-term impacts which cannot be avoided. The proposed project will cause a short-term impact to the normal vehicular traffic pattern along US Highway 93 in the vicinity of the weigh station during actual facility construction. These impacts will be temporary and should last only for the duration of the construction activities, which is anticipated to last between two and four months.

Possible impacts include the following:

- Additional traffic associated with construction of the weigh station.
- Partial closing of the southbound lane of US Highway 93 during construction of the auxiliary lanes for the weigh station.
- Reduction of the normal speed limits on US Highway 93 in the immediate vicinity of construction as protection for construction workers.
- Minor increases in dust and noise during construction activities.
- Minor inconvenience to local business in Evaro or Ravalli.

It is anticipated that construction impacts associated with each action alternative site would be approximately equal. Perhaps greater disruption to traffic would, however, be evident at the O'Keefe Site due to its close proximity to Missoula and slightly higher travel demand in this area.

Impacts will be minimized to the extent practical through proper construction practices. A traffic control plan will be developed to minimize inconvenience to motorists and businesses during construction. Traffic delays will be minimized by planning and scheduling.

Dust will be controlled by watering or other acceptable methods. Construction related erosion will be controlled in accordance with the storm water discharge permit.

In accordance with 7-22-2152 and 60-2-208, MCA, MDT will re-establish a permanent, desirable vegetation community along all areas beyond paved surfaces disturbed by the proposed construction. A set of revegetation guidelines will be developed by MDT that must be followed by the contractor. These specifications include instructions on seeding methods, seeding dates, types and amounts of fertilizer and mulch, along with seed mix components. Seed mixes will include a variety of species to assure that

areas disturbed by construction are immediately stabilized by vegetative cover. The Seeding Special Provisions developed for the proposed project will be forwarded to the responsible County Weed Board for approval.

5.10 PERMITS

Each of this proposed project's action alternatives will potentially disturb more than 2.0± ha (5 acres). Therefore, the following permits will be acquired prior to any relevant disturbance:

- The proposed project will be in compliance with the provisions for both water quality under 75-5-401(2) M.C.A. for Section 3(a) authorizations, and stream protection under 87-5-501 through 509 M.C.A., inclusive.
- A Section 402/Montana Pollutant Discharge Elimination System (MPDES) permit from the Montana Department of Environmental Quality's Permitting & Compliance Division (MDEQ/PCD).
- All work will also be in accordance with the federal Water Quality Act of 1987 (P.L. 100-4), as amended.

An Erosion Control Plan will be submitted to the MDEQ/PCD in compliance with their MPDES regulations (ARM 16.20.1314) for the proposed project. Best Management Practices (BMPs) will be included in the design of this plan using guidelines as established in MDT's Highway Construction Standard Erosion Control Workplan. The objective is to minimize erosion of disturbed areas during and following construction of this proposed project.

5.11 FLOODPLAINS

The only action alternative site considered being near a delineated floodplain under the Federal Emergency Management Administration (FEMA) rules is the Ravalli Site (Alternative 6). All of the other action alternative sites are located outside of the designated 100-year flood hazard zone of significant waterways in the area. This determination does not imply that any of the action alternative sites will not or cannot flood or be damaged by local drainage sources. None of the action alternatives are located in Special Flood Hazard Areas.

The Ravalli Site was evaluated by Lake County to determine if the area was prone to flooding since it is located near the Jocko River. The evaluation concluded that the property was 1) outside of the flood hazard zone; 2) the existing railroad bed forming

the west boundary of the property separates the site from the floodplain and; 3) any development on the property would be exempt from the requirements of the Lake County flood plain regulations (Sanderson, 1996).

5.12 FARMLAND

This section of the EA has been completed in accordance with the Farmland Protection Policy Act (FPPA) of 1981 which has as its purpose "to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, . . ." FPPA requires that before implementing any action that will result in conversion of farmland, the effects of the action should be examined, and if there are adverse effects, action to lessen them should be considered.

Farmland, as defined by FPPA, refers to land in any of four different categories: 1) prime farmland; 2) unique farmland; 3) farmland other than prime or unique that is of statewide importance; or 4) farmland other than prime or unique that is of local importance.

Construction at the proposed action alternative sites would be limited to activities within an acquired right-of-way to accommodate the weigh station, roadway alignment and lane configurations.

Depending on the site selected, the proposed project would impact approximately 2.0± ha (5 acres) of land designated as prime, important statewide or locally important by the Natural Resources Conservation Service (NRCS). Although an *Important Farmlands* map of Missoula and Lake County has not been published, the NRCS offices for Missoula and Lake County were contacted regarding the identification of Prime/Unique Farmland, or Farmlands of Statewide/Local Importance being affected by this project. A Farmland Conversion Impact Rating (#AD-1006) was completed for each action alternative site in accordance with FPPA. The Total Points for the proposed project Site Assessment Criteria are less than 160 for each site. Therefore, under 7 CFR 658.4 (c), no additional consideration for protection of farmland is necessary. A copy of the rating form for each site is included.

Approximately 2.0± ha (5 acres) of farmland classified as prime would be taken out of production as a result of project construction at the Otoupalak Site (Alternative 3). Approximately 2.0± ha (5 acres) of farmland classified as important statewide could be taken out of production on the O'Keefe Site (Alternative 2). Approximately 2.0± ha (5 acres) of farmland classified as locally important would be taken out of

production at either the Evaro Site (Alternative 4) or Ravalli Site (Alternative 6). The action alternative sites produce forage crops, livestock pasture and occasional small grains (Gooby, 1982, 1995, 1996).

An appropriate mitigation measure to reduce the amount of FPPA farmland converted to other uses would include acquiring only the additional width of right-of-way needed to construct the weigh station, highway improvements, provide desirable safety recovery areas and maintain the highway slopes.

5.13 NOISE

A traffic noise assessment was conducted by MDT for the four action alternatives in July 1996. The proposed construction project presents a problem for modeling traffic noise because a weigh station does not behave as a two- or four-lane highway. Therefore, it is not possible to model variations in noise caused by trucks pulling in and out of the weigh station, or idling for periods of time at the weigh station, using established traffic noise prediction models. The assessment was limited to identifying traffic noise generated from US Highway 93 at each of the action alternative locations and evaluating how the weigh station might alter these noise levels. The assessment included a determination of existing noise conditions and an estimate of future worst-case noise levels for each action alternative site. The complete Noise Assessment Report is included as Appendix D.

Alternatives 2, 3 & 4 -- O'Keefe, Otoupalak and Evaro Sites

Because there are no sensitive receivers in the vicinities of these action alternative locations, MDT has concluded there will be no noise impacts as a result of construction of the weigh station. However, if some of the nearby undeveloped lands were to be developed with residences or other noise-sensitive structures, then it is prudent to discuss future noise levels for the areas surrounding the proposed weigh station sites.

Based on the future projected traffic noise and estimate of noise from idling trucks, only receivers which are located at distances of less than approximately 50 meters (165 ± feet) from the idling trucks and within 50-60 meters (165-200 ± feet) of US Highway 93 will experience noise levels which may approach the Noise Abatement Criteria of 67 dBA for Activity Category B, which includes residences. Beyond a distance of approximately 50-60 meters (165-200 ± feet), the noise from idling trucks will be masked by the sound of traffic on US Highway 93.

It is likely that the slowing and accelerating of trucks pulling into and out of the weigh station will increase noise levels near the scale site slightly above the levels that are predicted. But this increase in noise would be most noticeable to receivers close to the weigh station, and currently there are no receivers that will be affected. If a Weigh-in-Motion system is utilized, fewer trucks would be required to stop, thus minimizing noise impacts to the surrounding area.

Alternative 6 -- Ravalli Site

Businesses in Ravalli which are close to US Highway 93 will experience design year (2020) highway traffic noise levels that approach the Noise Abatement Criteria of 72 dBA. Noise from an operating weigh station may increase the noise levels by only one decibel. The highway traffic noise will likely overshadow noise from the weigh station.

5.14 ENVIRONMENTAL JUSTICE

On February 11, 1994, President Clinton issued Executive Order 12898 requiring federal agencies to incorporate Environmental Justice considerations into the NEPA planning process. The purpose of this order is to ensure that low-income households and minority business enterprises do not suffer a disproportionate share of adverse environmental impacts resulting from federal actions.

No concentrations of minorities and/or low-income groups have been identified within the proposed project area. Implementation of any of the action alternatives will not create disproportionately high and/or adverse impacts on the health or environment of minority and/or low-income populations.

5.15 PEDESTRIANS AND BICYCLISTS

Construction of a weigh station at any of the action alternative sites would have no affect on the number of pedestrians and bicyclists using US Highway 93. US Highway 93 is lightly used by both pedestrians and bicyclists, with most of the pedestrian and bicycle traffic concentrated near Evaro (Alternative 4).

A number of residents in the vicinity of any of the action alternative sites routinely cross US Highway 93 on foot to access mailboxes or other facilities. Only limited numbers of pedestrians travel along US Highway 93 in the rural areas because the distances between communities are generally too long. However, a growing number

of bicyclists are seasonally touring along the highways in the area. The narrow highway shoulders and high number of vehicles causes a safety problem. There are no schools, bike paths, designated pedestrian facilities or marked crossings at any of the action alternative sites.

Construction of a weigh station could inconvenience pedestrian and bicycle traffic during the construction period by interrupting or prohibiting foot or bike traffic through the site as a safety measure. However, foot or bike traffic could improve the safety conditions by avoiding construction and bypass to the other side of the road at any of the action alternative sites.

5.16 WATER QUALITY

Alternative 2 -- O'Keefe Site

There is no surface water in the immediate vicinity of the O'Keefe Site. Ground water can be found at varying depths in sufficient quantity for domestic uses and purposes such as the proposed project. Ground water quality is generally excellent. Land use and development are subject to the nondegradation provisions of the Montana Water Quality Act. The Missoula County Comprehensive Land Use Plan is not applicable to development of the area. Permits for construction of any sanitary or sewage disposal system would be required through the City/County Health Department for protection of water quality.

Alternative 3 -- Otoupalak Site

O'Keefe Creek forms the western boundary of the Otoupalak Site. O'Keefe Creek is an intermittent tributary of the Clark Fork River that flows southerly from the Evaro Divide. Surface runoff in the area is derived from precipitation and snowmelt. Peak runoff generally occurs from May to July with base flows occurring during the remaining months (USGS, 1996). Precipitation in the area is variable and generally ranges from 380 to 510± mm (15-20 inches) per year. However, over 2.0± meters (80 inches) of precipitation, mostly snowfall, is common at higher elevations. June is generally the wettest month (NOAA, 1982).

The water quality of O'Keefe Creek is generally excellent particularly at higher elevations. Water quality may decrease in the lower elevations due to natural erosion, irrigation return flows, drainage from septic tanks, runoff from roads, farms and ranch

sites and increased temperature. The parameters that progressively and generally increase downstream are temperature, nutrients, suspended sediment, dissolved solids, fecal coliform, alkalinity and specific conductivity. In general, the beneficial uses of surface waters are not significantly impaired due to traditional land use activities (MDHES, 1990).

The alluvial system of O'Keefe Creek is generally shallow depending on clay lenses and the varying depths of the alluvial deposits. Ground water quality in the area is generally excellent with low concentrations of dissolved parameters and low specific conductivity. Recharge to the aquifers is from infiltration of precipitation, saturation zones of streams and seepage from irrigation.

Land use and development are subject to the nondegradation provisions of the Montana Water Quality Act. The Missoula County Comprehensive Land Use Plan is not applicable to development of the area. Permits for construction of any sanitary or sewage disposal system would be required through the City/County Health Department for protection of water quality.

Alternative 4 -- Evaro Site

Drainage from the wetlands forming the headwaters of Agency Creek are located near the Evaro Site. Shallow ground water is common in the area. Surface and ground water quality in the area is generally excellent with low concentrations of dissolved parameters and low specific conductivity. Recharge to the aquifers is from infiltration of precipitation (MDHES, 1990). The high water table would be an impediment to construction of a standard septic and leach field system. A raised sand mound system may be required.

Land use and development are subject to the nondegradation provisions of the Montana Water Quality Act. The Missoula County Comprehensive Land Use Plan is not applicable to development of the area. Permits for construction of any sanitary or sewage disposal system would be required through the City/County Health Department for protection of water quality.

Alternative 6 -- Ravalli Site

The Jocko River is located west of the railroad bed west of the Ravalli Site. Surface runoff in the area is derived from precipitation and snowmelt. Peak runoff generally

occurs from May to July with base flows occurring during the remaining months (USGS, 1996). Precipitation in the area is variable and generally ranges from 380 to 510± mm (15-20 inches) per year. However, over 2.0± meters (80 inches) of precipitation, mostly snowfall, is common at higher elevations. June is generally the wettest month (NOAA, 1982).

Water quality may decrease in the lower elevations due to natural erosion, irrigation return flows, drainage from septic tanks, runoff from roads, farms and ranch sites and increased temperature. The parameters that progressively and generally increase downstream are temperature, nutrients, suspended sediment, dissolved solids, fecal coliform, alkalinity, and specific conductivity. In general, the beneficial uses of surface waters are not significantly impaired due to traditional land use activities (MDHES, 1990).

The water table at the site is shallow (less than ten feet) in gravely, sandy glacial and alluvial deposits. Ground water quality in the area is generally excellent with low concentrations of dissolved parameters and low specific conductivity. Recharge to the aquifers is from infiltration of precipitation, saturation zones of streams and seepage from irrigation. The high water table would be an impediment to construction of a standard septic leach field. A raised sand mound system may be required (Tressler, 1996).

Land use and development are subject to the nondegradation provisions of the Montana Water Quality Act. The Lake County Comprehensive Land Use Plan is not applicable to development of the area. Permits for construction of any sanitary or sewage disposal system would be required through the local City/County Health Department for protection of water quality.

Missoula Sole Source Aquifer

Two of the action alternative sites (O'Keefe and Outoupalak) are located within the area designated by the USEPA as the Missoula Sole Source Aquifer (SSA). As such, USEPA Region VIII (Denver, CO) must review the project for compliance with the provisions of the designation as to whether or not it poses a threat to the aquifer that would endanger public health. Mr. William J. Monheiser of the Region VIII office was contacted and his letter of response is included in Appendix G. His review has indicated that there would not be any "undue threat to the sole source of drinking water in the Missoula Valley" as a result of this proposed project. Mr. Monheiser did

advise that provisions be made to control storm water runoff from the paved portions of the weigh station facility. To that end, the selected site (whether inside or outside the Missoula SSA) will be constructed with grassed swales adjacent to the paved areas to capture and treat storm water runoff. This type of control will allow storm water to be treated biologically prior to infiltration into the surface soil materials.

5.17 WATER BODY MODIFICATION AND WILDLIFE

No modifications to streams or bodies of waters used for recreation, water supply or other purposes are contemplated as a result of construction of the weigh station at either Alternatives 2 or 6. As noted in the Biological Resources Report (Appendix C), it was assumed for purposes of analysis that facilities constructed on Alternative 3 would be oriented such that direct impacts to O'Keefe Creek and any associated wetlands would be avoided. It was also assumed that direct impacts to O'Keefe Creek and its immediate wetland fringe would be avoided at Alternative 4.

Westslope cutthroat trout, listed as a species of concern by the MNHP, occur in O'Keefe Creek, which traverses Alternatives 3 and 4. This species could be indirectly affected by water quality impacts resulting from construction of the weigh station on either of these sites.

The proposed weigh station will not result in the loss, degradation or modification of any aquatic or terrestrial habitat on either Alternatives 2 or 6. Both sites provide little in terms of wildlife habitat. Wildlife use on these properties appears to be limited due to the lack of habitat and proximity to sources of human disturbance.

The Otoupalak Site (Alternative 3) likely receives considerable wildlife use along O'Keefe Creek, particularly by deer. Numerous additional species likely use the riparian fringe along the creek as a travel corridor through the valley. Based on aerial photographs, the large pond and forested fringe immediately west of the creek in the southwestern portion of the site is also likely attractive to a variety of wildlife species for breeding, nesting/denning and foraging activities. Wildlife use of the upland portions of Alternative 3 is probably not extensive due to the lack of habitat diversity and proximity to existing sources of human disturbance.

Similar to Alternative 3, wildlife use on the Evaro Site (Alternative 4) likely occurs primarily along O'Keefe Creek and its dense riparian fringe and in the wet meadow portion on the south half of the pasture. Wildlife use of the upland portion of the

pasture itself is probably not extensive due to the lack of habitat diversity and proximity to existing sources of human disturbance which include the highway and residential and commercial development.

Site-specific plans have generally not been prepared for individual action alternative sites. However, a detailed plan (Station "A" on Figure 4-5) prepared by MDT for Site 6 (Ravalli Site) was used as a general model for assessing impacts at all of the action alternative sites. Based on the Station A design, the proposed project would result in the clearing and paving of approximately 2.0 ± ha (5.0 acres) of existing vegetation at each of these sites.

The weigh station would be constructed to accommodate existing and anticipated truck traffic on US Highway 93, and is therefore not expected to substantially increase truck traffic in the general project corridor. Consequently, construction of the weigh station at any of the action alternative sites is not expected to substantially affect wildlife-vehicle collision rates. Similarly, construction on any of the action alternative sites is not likely to substantially affect wildlife by way of disturbance and displacement as the impact area would be very confined and habitat similar to that which would be affected is abundant in the project vicinity at all sites.

5.18 VISUAL

Each of the action alternative sites are currently used for minimal agricultural activities and are undeveloped with respect to structures. Visually, each site blends into the surrounding properties well. The general visual environment includes a combination of residential and agricultural properties (Alternatives 2, 3 and 4) and nearby commercial development (Alternatives 4 and 6).

Minor to moderate visual impacts may result from construction and ultimate operation of the weigh station. The negative visual impact would probably be greatest at the O'Keefe Site (Alternative 2) and the Otoupalak Site (Alternative 3) because of the lack of other commercial development in these areas. The visual impact of the weigh station would be less at the Evaro Site (Alternative 4) and even less at the Ravalli Site (Alternative 6) due to general compatibility of such a facility with nearby commercial land uses.

Mitigation of negative visual impacts could include some combination of 1) minimizing the size of the weigh station facility to the extent possible, 2) post-construction

landscaping with trees and shrubs to provide a visual barrier, and 3) painting the weigh station structure(s) in subtle colors or earth tones.

The negative visual impacts that would be associated with the two to four month construction period are considered to be short-term, temporary and insignificant.

5.19 CUMULATIVE IMPACTS

Cumulative impacts are defined as impacts that "result from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) undertakes such other actions." For the evaluations on this project, this includes any projects that are located within 1 km (0.6 ± mile) of any of the sites under consideration and that are proposed to be constructed within three (3) years of the anticipated construction date of this proposed project.

MDT currently has one proposed project in this area that meets the above criteria. The Dixon-Ravalli project consists of the reconstruction of a 21.1 ± km (7.5 mile) section of Montana Highway 200 starting at the community of Dixon and extending to the junction with US Highway 93 just north of the community of Ravalli. This project is in the vicinity of one of the potential sites (Ravalli). This project is a reconstruction of an existing roadway facility intended to bring a deteriorated roadway up to current standards and had a FONSI completed for the project (signed October 20, 1995.) There will be no significant cumulative impacts resulting from the project.

MDT, in cooperation with the Salish and Kootenai Tribes, has completed an Environmental Impact Statement (EIS) covering this proposed improvement of the highway on the Evaro to Polson US Highway 93 corridor. The EIS and the Record of Decision approved alignment of the corridor but made no provisions for any design/construction projects on the US Highway 93 corridor to follow the EIS process. Any actual projects along this route in the future would have to tier off the EIS. No such projects are planned or proposed at this time. If any actual projects were constructed in the future, they would be outside the schedule and location criteria stated previously.

Therefore, no MDT projects will have any cumulative significant impact on this proposed action. This proposed weigh station project will also have no significant cumulative environmental impacts on any other MDT projects in the area. No other

projects by any other agencies that would have cumulative impacts on the proposed project have been identified.

6.0 COMMENTS AND COORDINATION

Several methods of communicating with the public were utilized during the course of this study. The goals of the project communication are to:

- Provide information regarding the study.
- Develop concepts and alternatives.
- Identify issues.
- Communicate ideas and concepts that are considered.
- Receive comments on the study and the project.
- Solicit input from the public as to the appropriate design features for this project.

6.1 Public Involvement Activities

A public scoping process has been conducted to encourage and provide an opportunity for public comment on the proposed project. Three public scoping meetings have been held as follows:

April 17, 1996 -- Joker's Wild Restaurant in Missoula, MT
April 18, 1996 -- Arlee Elementary/High School Cafeteria, Arlee, MT
May 8, 1996 -- Joker's Wild Restaurant in Missoula, MT

A notice for each meeting was generally advertised one to two weeks prior to each meeting in newspapers in or near the area of the proposed project. Written notice of each meeting was also sent to all individuals and agencies who requested to be on the mailing list.

Each meeting (except the April 18 meeting in Arlee which no people attended) included a brief presentation explaining the history of the proposed project, the environmental review process, the purpose of each meeting and planned future activities. Informational handouts were provided at each meeting.

Following are copies of the informational handouts and the transcribed minutes for each public scoping meeting (except the Arlee meeting).

6.2 Remaining Public Involvement

A Notice of Availability of the EA and planned date for a public hearing will be mailed or delivered to all parties on the project mailing list and advertised in the local

newspapers. A notice will be published in the Missoulian to inform the general public of the hearing. The date of the public hearing will be advertised 15 days in advance of the hearing. At the public hearing, the general public will be given the opportunity to provide official comment on the project.

Written public comments, to be included as an official part of the record, will be accepted for 30 days following the Notice of Availability. Written comments concerning this proposed project should be addressed to either of the agencies at the bottom of this document's signature page. Any comments received will be evaluated to determine the following:

- whether significant impacts occur from any of this proposed project's alternatives;
- if further consideration of the impacts discussed herein is necessary; and/or
- if new issues have arisen that need to be included in this EA.

Following closure of the comment period on the EA, the following tasks will be undertaken:

1. Summarizing comments received on the EA.
2. Preparing a final decision document which will be either a:
    - Finding of No Significant Impact (FONSI), or an
    - Environmental Impact Statement (EIS), if significant impacts are identified.

April 17 & 18, 1996
MCS Weigh Station Public Scoping Meeting
Minutes

Two Public Scoping Meetings for Motor Carrier Services Weigh Station were held as follows: May 17 at the Joker's Wild Restaurant in Missoula, Montana, from 7:00 - 9:00 p.m.; and May 18 - Arlee Elementary/High School Cafeteria, Arlee, Montana. The meetings were set up in an open house format. Handouts for the meetings included:

- Agenda for the evening meeting (attached)
- Informational Brochure (attached) that included the following information:
  - Services to be provided by the proposed weigh station
  - Need for the project
  - Sites being considered
  - How the proposed sites will be evaluated
  - The proposed facility to be constructed
  - Schedule of implementation
  - Purpose of the scoping meeting
  - Comment sheet
  - Map of the sites being considered

Those present were:

Agency Personnel:

Jeff Berglund	Morrison-Maierle Environmental
Annell Fillinger	Morrison-Maierle Environmental
Bob Bechman	Morrison-Maierle Engineering
Dave Dreher	Montana Department of Transportation
Fred Bente	Montana Department of Transportation
Richard Kershaw	Montana Department of Transportation
John Marron	Montana Department of Transportation
Jim Weaver	Missoula Montana Department of Transportation

Missoula Meeting - public attendees

Bob Zachariasen	Missoula Cartage, 9300 Cartage Road, Missoula, MT 59802
David Mager	Peterson Trucking, 6215 St. Thomas Drive, Missoula, MT59803

Arlee Meeting - public attendees

No people attended

Visual Aids set up for informational purposes were as follows:

1) MCS Weigh Station Purpose and Need

Purpose

Vehicle weighing to ensure compliance with highway weight limitation

Review of vehicle cargo, licensing, documentation and safety requirements

Licensing and permitting

Need

No weigh station currently operating on U.S. 93

One of the heaviest traveled trucking corridors in the State. Missoula is a major commercial trucking hub

Provide service to users

2) MCS Weigh Station Environmental Documentation Process
(Copy attached)

3) MCS Weigh Station Site Evaluation

Evaluation Criteria	Muralt's near truck stop	O'Keefe Site	Otoupalak Site	South edge of Evaro	Gravel Pit at Dirty Corner	Ravalli
Utilities						
Land owners acceptance						
Public acceptance						
Convenience for truck licensing						
Safety						
Access						
Enforcement effectiveness						
By-pass options (≈ 20 miles or 20 minutes)						
Compatibility with adjacent users						
Vandalism						
Compliance with zoning						
Cost						
Environmental						
Weigh in motion compatibility						
Customer service: convenience to Missoula users of service						
Design vehicles/optional needs						
Layout/topography						
Parking needs for trucks, service vehicles/ employees						
TOTAL						

4) Conceptual Design Options (pictures)

5) MCS Weigh Station Site Evaluation
   Map of Highway (marked) with potential sites

6) Six Highway aerial photos with blue overlays identifying each site.

Comments:

It was suggested that the state consider putting in a median weigh station to accomodate both lanes of traffic.

PUBLIC SCOPING MEETING
FOR
MOTOR CARRIER SERVICES WEIGH STATION

APRIL 17 and 18, 1996

WHAT ARE THE SERVICES PROVIDED BY THE PROPOSED MCS WEIGH STATION?

The primary purpose of the weigh station will be that of weighing vehicles to ensure compliance with highway weight limitations. Vehicle cargo, licensing documentation, and safety requirements will be reviewed. Another service provided by the weigh station will be that of licensing and permitting of trucking users.

WHY IS IT NEEDED IN THIS VICINITY OF US 93?

This section of US 93 (Missoula to Polson) is one of the heaviest traveled trucking corridors in the state. Currently, there are no facilities in the area established to monitor this activity. The Lolo Weigh Station on US 93 south of Missoula was recently closed for safety reasons. Proximity to Missoula will also permit service to the heaviest trucking hub in the region.

WHAT SITES ARE BEING CONSIDERED AND WHY HAVE THEY BEEN SELECTED AS OPTIONS?

Six sites are being considered in this evaluation process. They are:

1. Muralt's Truck Stop	Milepost 0.5
2. O'Keefe Site*	Milepost 1.23
3. Otoupalak Property	Milepost 3.43
4. Evaro (next to Bucksnort)	Milepost 6.62
5. Dirty Corner Gravel Pit	Milepost 15.8
6. Ravalli (next to Trading Post)	Milepost 27.23

* Previously rejected - for comparison purposes only.

They have been selected as potential candidates due to their proximity to Missoula, safe access to US 93, and general site topography.

MMI #0275.074-020-0214
a:/RAB/wp4/MCSscope.mtg
April 11, 1996

PUBLIC SCOPING MEETING
FOR
MOTOR CARRIER SERVICES WEIGH STATION

APRIL 17 and 18, 1996
(Cont.)

HOW WILL EACH SITE BE EVALUATED?

Each site will be evaluated based upon various criteria including public opinion, environmental considerations, MCS enforcement abilities, proximity to Missoula users, safety, and site development requirements.

WHAT FACILITIES WILL BE CONSTRUCTED FOR OPERATIONS?

The site will consist of a small building (approximately 15' x 45') which will serve 2-3 employees, and permit vehicle review, licensing, and office operations. Parking will be provided to accommodate 9-12 commercial vehicles and 3 employee vehicles. Weigh-in-motion technology is proposed permitting initial vehicle weighing, upstream of the weigh station on the highway mainline, while in motion. Vehicles found to be in compliance will be permitted to passby the facility, while those in question will be directed in for further weighing and review. This technology will enhance efficiency and minimize vehicle stoppages.

WHAT IS IMPLEMENTATION SCHEDULE OF SELECTED ALTERNATIVE?

Completion of the Environmental Assessment process is expected by this summer. At that time, final design of the selected weigh station site will commence. Construction of the weigh station is slated for 1998, permitting full-scale operation by 1999.

WHAT IS THE PURPOSE OF THIS PROJECT SCOPING MEETING?

The ultimate objective of the project scoping meeting is to gather public input on the proposed project. This involvement process will become an integral part of the final plan recommendation. This meeting will also assist in providing the public with the project background, purpose and need, proposed alternatives, and evaluation process.

PUBLIC SCOPING MEETING APRIL 17 and 18, 1996
ENVIRONMENTAL ASSESSMENT (EA)
RAVALLI WEIGH STATION - F 5-2 (30) 27

Please write your comments or suggestions below concerning the proposed project. Your comments will provide valuable input for the preparation of the environmental assessment for the proposed project. Comments can be left at the meeting or can be mailed to:

Samuel A. Naseem, P.E.
Consultant Design Engineer
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620
Telephone: (406) 444-6251

We would appreciate receiving your comments by May 1, 1996.

Please indicate your name, mailing address, and affiliation on the lines below. Thank you for your interest in this project.

Name and Address: ______________________________

MMI #0275.074-020-0214
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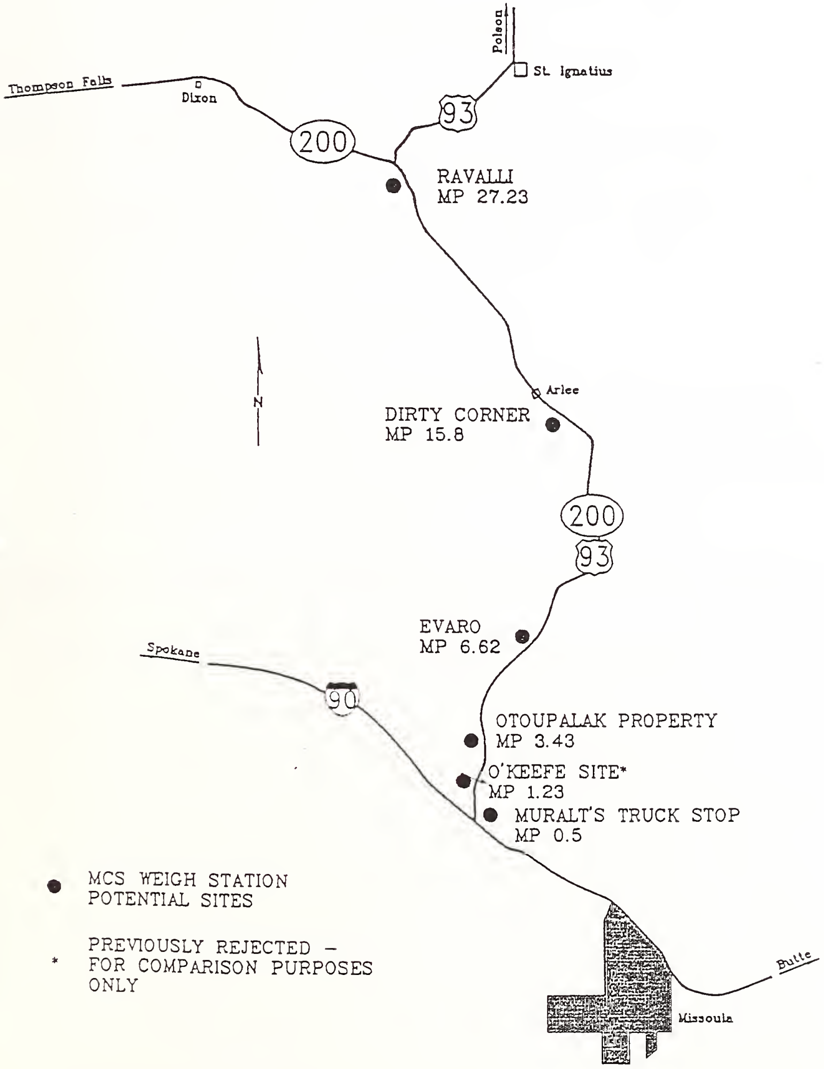
April 11, 1996

MCS WEIGH STATION SITE EVALUATION



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PUBLIC SCOPING MEETING
FOR
MOTOR CARRIER SERVICES WEIGH STATION

MAY 8, 1996

WHAT ARE THE SERVICES PROVIDED BY THE PROPOSED MCS WEIGH STATION?

The primary purpose of the weigh station will be that of weighing vehicles to ensure compliance with highway weight limitations. Vehicle cargo, licensing documentation, and safety requirements will be reviewed. Another service provided by the weigh station will be that of licensing and permitting of trucking users.

WHY IS IT NEEDED IN THIS VICINITY OF US 93?

This section of US 93 (Missoula to Polson) is one of the heaviest traveled trucking corridors in the state. Currently, there are no facilities in the area established to monitor this activity. The Lolo Weigh Station on US 93 south of Missoula was recently closed for safety reasons. Proximity to Missoula will also permit service to the heaviest trucking hub in the region.

WHAT SITES ARE BEING CONSIDERED AND WHY HAVE THEY BEEN SELECTED AS OPTIONS?

Six sites are being considered in this evaluation process. They are:

1. Muralt's Truck Stop	Milepost 0.5
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* Previously rejected - for comparison purposes only.

They have been selected as potential candidates due to their proximity to Missoula, safe access to US 93, and general site topography.

MMI #0275.074-020-0214
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May 7, 1996

PUBLIC SCOPING MEETING
FOR
MOTOR CARRIER SERVICES WEIGH STATION

MAY 8, 1996
(Cont.)

HOW WILL EACH SITE BE EVALUATED?

Each site will be evaluated based upon various criteria including public opinion, environmental considerations, MCS enforcement abilities, proximity to Missoula users, safety, and site development requirements.

WHAT FACILITIES WILL BE CONSTRUCTED FOR OPERATIONS?

The site will consist of a small building (approximately 15′ x 45′) which will serve 2-3 employees, and permit vehicle review, licensing, and office operations. Parking will be provided to accommodate 9-12 commercial vehicles and 3 employee vehicles. Weigh-in-motion technology is proposed permitting initial vehicle weighing, upstream of the weigh station on the highway mainline, while in motion. Vehicles found to be in compliance will be permitted to passby the facility, while those in question will be directed in for further weighing and review. This technology will enhance efficiency and minimize vehicle stoppages.

WHAT IS IMPLEMENTATION SCHEDULE OF SELECTED ALTERNATIVE?

Completion of the Environmental Assessment process is expected by this summer. At that time, final design of the selected weigh station site will commence. Construction of the weigh station is slated for 1998, permitting full-scale operation by 1999.

WHAT IS THE PURPOSE OF THIS PROJECT SCOPING MEETING?

The ultimate objective of the project scoping meeting is to gather public input on the proposed project. This involvement process will become an integral part of the final plan recommendation. This meeting will also assist in providing the public with the project background, purpose and need, proposed alternatives, and evaluation process.

PUBLIC SCOPING MEETING MAY 8, 1996
ENVIRONMENTAL ASSESSMENT (EA)
RAVALLI WEIGH STATION - F 5-2 (30) 27

Please write your comments or suggestions below concerning the proposed project. Your comments will provide valuable input for the preparation of the environmental assessment for the proposed project. Comments can be left at the meeting or can be mailed to:

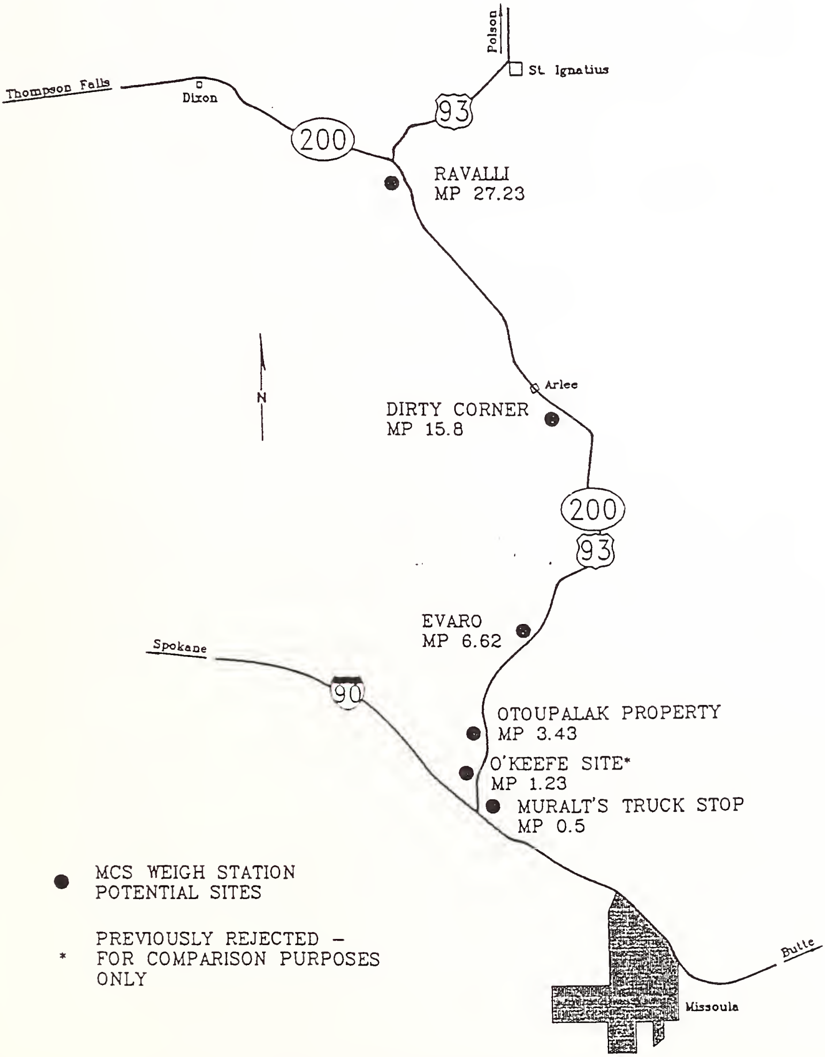
Samuel A. Naseem, P.E.
Consultant Design Engineer
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620
Telephone: (406) 444-6251

We would appreciate receiving your comments by May 24, 1996.

Please indicate your name, mailing address, and affiliation on the lines below. Thank you for your interest in this project.

Name and Address: ______________________________

MCS WEIGH STATION SITE EVALUATION



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May 8, 1996
MCS Weigh Station Public Scoping Meeting
Minutes

The Public Scoping Meeting for Motor Carrier Services Weigh Station was held at the Joker's Wild Restaurant in Missoula, Montana, from 7:00 - 9:00 p.m. on May 8, 1996. The meeting was set up in an open house format with a brief formal presentation given by the Montana Department of Transportation at 8:00 p.m. Handouts for the meeting included:

- Agenda for the evening meeting (attached)
- Informational Brochure (attached) that included the following information:
    - Services to be provided by the proposed weigh station
    - Need for the project
    - Sites being considered
    - How the proposed sites will be evaluated
    - The proposed facility to be constructed
    - Schedule of implementation
    - Purpose of the scoping meeting
    - Comment sheet
    - Map of the sites being considered

Those present were (sign-in sheet attached):

Jeff Berglund	Morrison-Maierle Environmental
Annell Fillinger	Morrison-Maierle Environmental
Bob Bechman	Morrison-Maierle Engineering
Dave Dreher	Montana Department of Transportation
Fred Bente	Montana Department of Transportation
Richard Kershaw	Montana Department of Transportation
John Marron	Montana Department of Transportation
Jim Weaver	Missoula Montana Department of Transportation

Jim McFarland	Jim & Mary's RV Park	9800 Highway 93 North	Missoula, MT 59802
George J. Tabish	Tabish Brothers	P.O. Box 8448	Missoula, MT 59802
Chris Rakow		10225 Highway 93 North	Missoula, MT 59802
Judy Jerome		10705 George Cates Blvd.	Missoula, MT 59802
Sue Mahlum		10955 Highway 93 North	Missoula, MT 59802
Bob Massey	Meadows West	P.O. Box 2543	Missoula, MT 59802
Frank Tabish	Tabish Brothers		Missoula, MT 59802
Cindy R. Woods	Meadows West	10175 George Cates Blvd.	Missoula, MT 59802

Visual Aids set up for informational purposes were as follows:

1) MCS Weigh Station Purpose and Need
    - Purpose
        - Vehicle weighing to ensure compliance with highway weight limitation
        - Review of vehicle cargo, licensing, documentation and safety requirements

Licensing and permitting

Need

No weigh station currently operating on U.S. 93

One of the heaviest traveled trucking corridors in the State. Missoula is a major commercial trucking hub

Provide service to users

2) MCS Weigh Station Environmental Documentation Process

(Copy attached)

3) MCS Weigh Station Site Evaluation

Evaluation Criteria	Muralt's near truck stop	O'Keefe Site	Otoupalak Site	South edge of Evaro	Gravel Pit at Dirty Corner	Ravalli
Utilities						
Land owners acceptance						
Public acceptance						
Convenience for truck licensing						
Safety						
Access						
Enforcement effectiveness						
By-pass options (= 20 miles or 20 minutes)						
Compatibility with adjacent users						
Vandalism						
Compliance with zoning						
Cost						
Environmental						
Weigh in motion compatibility						
Customer service: convenience to Missoula users of service						
Design vehicles/optional needs						
Layout/topography						
Parking needs for trucks, service vehicles/ employees						
TOTAL						

4) Conceptual Design Options (pictures)

5) MCS Weigh Station Site Evaluation
Map of Highway (marked) with potential sites

6) Six Highway aerial photos with blue overlays identifying each site.

Presentation:

An informal presentation was conducted from 7:00 p.m. to 8:00 p.m. At 8:00 p.m. a formal presentation of the project was given by Montana Department of Transportation as follows:

Dave Dreher: I'm Dave Dreher, with Department of Transportation's Public Affairs office. We are here this evening to discuss options for weigh station locations between Missoula and Ravalli. This is an informational meeting or scoping meeting. We are here to visit with you about possible sites that we've identified. If there is something that we have not identified that is worth considering, we would certainly like to here about it. We want to here your comments about what we've identified, what we may not have identified, etc. The general format for tonight's meeting is from 7:00 to 8:00 will be a brief open house, at 8:00 p.m. we will have a presentation from Bob Beckman who will talk about what we have already identified, from there we will go back into an open-house format. You are more than welcome to talk with us one-on-one if any questions come up.

I am recording this meeting to keep a good record of what was done formally here. If you have comments or questions, I would appreciate you stating your name so that we will have a point of reference for getting back to you if we need to and also we will have an accurate record of whose concerns are whose. If you haven't signed in before now, please do so before you leave. We also have comment sheets available and we encourage you to make written comments and get those to us as soon as possible. If you are hesitant about making a verbal comment during the meeting, we have a recorder available for one-on-one comments after the meeting. You are more than welcome to give your comments to use before you leave tonight or you may mail them in. The address is on the comment sheet. Be assured all your comments will be considered.

At this time I will turn it over to Bob Beckman to talk you about specifics of the project.

Bob Beckman: At this time I'd like you to turn your attention to the photographs along the walls. No. 1 is the Muralt Truck Stop Site. No. 2 is the O'Keefe site which has been previously rejected. No. 3 is the Otoupalak property, please notice the adjacent residences there - there are two in that vicinity that we would be considering as part of our analysis. Site No. 4 is the south edge of Evaro. Site No. 5 is the Dirty Gravel Pit which the state owns. Site No. 6 and the last site we are considering is the Ravalli site at mile post 27.23.

At this time I'll tell you some details about our schedule. Currently we are working on the Environmental Assessment. Once we have that completed this summer and we will be back in

front of you with the outcome of that and the recommendations from that report. At that point we will begin design of the selected alternative. That could take up to six to nine months - we do need to negotiate that with the state. We are hoping for construction in 1998 for the selected alternative. And full-scale operation will probably take place in 1999. That is about all I have, if you have any questions in relation to that, I'll be glad to answer them. Richard Kershaw is going to inform us about the purpose and need of this project.

Bob Beckman
~~Richard Kershaw~~: Regarding purpose and need of the weigh station - basically I would direct your attention to this (informational handout). The purpose is primarily for vehicle weight, to insure compliance with highway and weight limitations, next to review vehicle cargo and licensing documentation and safety requirements, and lastly the purpose is for licensing primarily for Missoula users and those using this corridor.

Regarding the need: There is no weigh station currently operating on U.S. 93 which is one of the heaviest trucking hubs in the corridor, as well as Missoula being one of the heaviest major hubs in the state for trucking. There is no service near by. Basically we are looking to provide a service to those users. The Lolo station was recently closed down south of Missoula on U.S. 93 for safety reasons.

Dave Dreher: If you have any questions or comments that you want on this record, we will take them at this time.

Sue Mahlum: If you closed the one at Lolo, then this weigh station that you are putting in now could be anywhere from Lolo to Kalispell. Is that the corridor you are talking about?

Dave Dreher: As I understand it. Richard you had a concern about the northern portion of the corridor?

Richard Kershaw: Yes, this is to address the Missoula users.

Sue Mahlum: How do you do the truck traffic from Missoula south to Lolo? What is handling the Missoula southbound traffic now?

Richard Kershaw: We have plans to put in four new weigh sites in four new locations.

The traffic on this section of highway is almost three times the traffic on similar highways for commercial vehicle users. For instance U.S. 87 and Highway 3, this corridor handles about three times the traffic.

Question: How close do you want to get to Missoula?

Richard Kershaw: Most of our customers are right here in Missoula.

Jim Weaver: There is two ways to answer that: (1) one is the enforcement function, and for that purpose it doesn't matter how close it is to Missoula, and (2) is the service function, the license and permitting, and for that purpose the closer to Missoula the better.

Frank Tabish: Could you explain again the new technology for weighing trucks moving down the highway.

Bob Beckman explained the "weight-in-motion" technology. That technology enables us to basically weigh trucks upstream of the weigh station. I believe they can be moving be at full speed. If they are in compliance they will be allowed to pass on. If they are not in compliance, they will be signaled in by means of a signal and waived in. If there are still problems, then we would have to get a static scale. The biggest thing is to try and keep those big vehicles moving.

Cindy Woods: The concept is great but it doesn't work. It doesn't even work at the stations where we have to stop.

Richard: It is a proven technology. This is a perfect place for this thing because there is a lot of users on that road that are in compliance, so why make them stop and come in and play the game every time. We need to avoid that and this is a way to do that. This is a proven technology.

Cindy Woods: Where?

Jim Weaver: Leave your name and we will send you some information on this technology and where it is being used.

Sue Mahlum: If the trucks are weighed on the highway and they are stopping at the weigh station then what is the convenience for them buying their permits at the weigh station? They are there at the weigh station with their trucks. Why does it matter if it is close to Missoula?

Richard Kershaw: The law states that before you can operate a truck you have to have a license for it. A station that is out of town sells a lot of permits to the over the road driver. The facility near town takes care of town. If you need to move equipment or your need to move a garden shed to the other side of town, you need a permit to do that. Right now you either go over to the University office or you go to Drummond, Montana to purchase that permit.

Sue Mahlum: Can't you go to Muralt's and get one?

Richard Kershaw: No. Muralt's sells permits to the over-the-road truck (tractor/trailer) driver but not the in-town ones.

Due Mahlum: Then don't you really need a nice office in town that can sell all these things for all these town people to get what they want.

Richard Kershaw: I can't afford an office everywhere.

Chris Rakow: You guys could afford one if you put it on the gravel pit - you already own that and you wouldn't have to buy the property. Then you could spend whatever you would have spent on the property and put an office in Missoula.

Richard Kershaw: You still have to consider how many people we would have to hire state-wide to operate the weigh stations. I read some of the written comments and the biggest problem we have is people now knowing what we do at the weigh stations. We license those trucks, and see that they have paid their taxes, we see that they have breaks, etc. We need to let people know what we do.

Chris Rakow: We are not saying "no weigh station". In fact, living there we know that there are trucks that are going so fast down the hill that it would be wonderful to have you on that road. But where you have it is a residential area and that is our objection.

Richard Kershaw: You and I want a scale, but where do you want us to put it? That is why we have asked for your input.

Chris Rakow: When you look at each one of those sites, there are serous things wrong with each one of them. Then what would work? The Dirty corner site, you own the land, but it is too far for permits. So, then what can we work out?

Richard Kershaw: Another concern I have is that the Dirty corner site has a county road around the site. Then the truckers don't show up at the weight station. They take a back county road to miss the site.

Jim Weaver asked Bob to go through the evaluation process that will be used to evaluate each site.

Bob Beckman: We will be utilizing the matrix (wall display). He explained each of the criteria listed on that matrix (See Chart No. 5 - Evaluation Matrix).

Chris Rakow: I have one really big concern. Since that incident at Alberton where all the traffic was diverted through here, the truck traffic was horrible, and my biggest problem is that this is where the state has put up signs "no jake brakes", etc., and for three weeks I never saw a truck stopped. They were doing 70 mph in front of our places. They almost hit some people. Two, three, four in the morning we were awakened because their brakes were slowing them down at Evaro Hill. It brought everything right home on what we are complaining about - it was so bad.

Richard Kershaw: Two things I can do for your on that. I will take your name and number and give you the statistics on how many trucks were stopped. I know the highway patrol kept track

of how many trucks and vehicles they stopped. They were busy. We had more enforcement on that road than any highway in the State.

Jim Weaver: The Highway Patrol committed four officers on the detour while the interstate was closed down. They made a fortune on tickets.

Frank Tabish: Seventeen or eighteen years ago we bought a tract of land out there. One of the reasons we bought it was because it was commercial. It didn't want to live out there because I understood that the highway was going through there. That is a state highway, but that is the problem you have when you live on the highway.

Cindy Woods: It is unanimous that we need some sort of supervision up in that area. The big concern is the trucks pulling in and out that frequently. You know what it is like.

Richard Kershaw: The design people can help us there. We need to find out what kind of things are necessary. There are rules that dictate how you have to build and to what specifications - lanes and traffic flow, acceleration, deceleration, etc.

Bob Beckman: We will be involved in that process and in the design.

Dave Dreher: There are some conceptual designs up here (referring to the visual), nothing that is locked in, but some ideas.

Bob Beckman: Some of them come from sites that have been developed. We are looking at a weigh-in-motion option.

Sue Mahlum: On the top of Peterbuilt Hill, is there enough room to pull out for those big trucks?

Richard Kershaw: Two things that weigh-in-motion technology needs to be as effective as possible - a flat level spot for it to work properly so hills are out basically, and the other is that we want to build one facility that has the capability of using both lanes.

Sue Mahlum: There is no way you can ever do something on both sides of the highway because it is too expensive?

Richard Kershaw: It is too expensive.

Sue Mahlum: If that is the case wouldn't that eliminate Otoupalak's property because they are coming down that road and there is not enough flat land there to do it?

Richard Kershaw: That still has to be figured out by the design people.

Bob Beckman asked if everyone understood the environmental assessment process and asked Jeff Berglund with Morrison-Maierle Environmental to explain that process.

Jeff Berglund: Basically right now we are in the scoping process to gather public and agency comments. From here we will eliminate design flaws, etc., and pare it down to a couple of alternatives. Additional information will be gathered and a preferred alternative developed. Then a draft document will be sent out, probably to the people on the mailing list and you will have a chance to comment on that document at a public hearing. The agency gives 30 days to receive comments from the public. Then we will incorporate those comments into a final environmental assessment document with findings of either “no significant impacts” or “significant impacts” on the site chosen. If significant impacts are found, a full blown environmental impact statement may be done.

It is important to know that this is not your only shot at giving comments before the document is finalized.

Judy Jerome: How many are on your mailing list?

Dave Dryer: I don’t have the exact figure but it was something in excess of 30+ that received direct letters. We also sent a notice to post masters to be posted in post offices up and down the line. We had three advertisements in the paper. I sent press releases to all of the media in the vicinity. Now whether they run those or not is their option, but they all got press releases. I talked to several of the radio stations and tried to encourage them to run the notice but I don’t know if they did. Those are the efforts we have made to contact folks.

Sue Mahlum: It is too bad we can’t use the money for an overpass at Malfunction Junction. You’ve got money where you don’t need it and no money where you do need it.

Richard Kershaw: I don’t think this is a bad project.

Dave Dryer: Are there any other comments or questions?

Fred Bente: One thing I would point out is that when evaluating this project we looked at every flat spot between here and Ravalli where we could put a weigh station. If we missed something we would be interested in hearing where they are.

When we talk about weigh in motion, one thing is that they do work well in other places that use them, but they are very terrain dependent. Part of the analysis is going to be figuring out which sites work and how much truck traffic we are actually looking at.

Dave Dryer: At this point, unless there are some other comments, I would again encourage you to write down the things you have already said to make sure that we have them in writing. We will

be available for as long as you want to talk to us one-on-one and we will try to answer your questions. This will wrap up the formal portion of this meeting and we will adjourn to an informal session.

Cindy Woods: One more question. You said there were some concerns at Dirty Corner. I drive truck and I wouldn't want to drive over those county roads with a semi truck. Where would a truck go to avoid the weigh station?

Richard Kershaw: You would be surprised where they would go. There are a lot of places they can go. One of the considerations on that site is a county road that circumvents the weigh station.

Jim Weaver: Do you know where the Jocko River road is. It goes right into a good county road right at Dirty Corners. It is less than a mile around of additional distance. It is a actually a secondary highway - You follow the Jocko River Road and it intersects with a secondary highway.

Cindy Woods: Have you ever driven that road? I don't think you could drive a semi on that road. But wouldn't it be a little obvious that all of a sudden there is a weigh station and suddenly the truck take a different road?

Richard Kershaw: Yes, you see the dust pile. It doesn't matter that it is or is not obvious, the point is they can get around it. Some trucks will go around and all you'll see is a cloud of dust.

Dave Dreher: Some people will go around it. Right now we will break this up and continue the discussion informally. Thank you for your participation.

Meeting was adjourned at 8:40 p.m.

Written comments follow (attached):

Sue Mahlum:

After reviews of the plans and finding the faults with each, the only one with no problems seems to be Dirty Corner. You already own the land - huge point and traffic can be controlled. The reasons presented against the other sites are very large. With this in mind Dirty Corner appears to be the only viable site!!

Jim McFarland:

M.P. 15.8 Dirty Corner seems safest "Put it there"

Gerald Morris:

After reviewing the aerial photos of the different proposed sites, it is my opinion that the gravel pit at "Dirty Corner" would be a more logical choice. The highway layout provides best sight conditions. The property is already state owned. There appears to be no nearby residential area to cause a conflict.

MCS WEIGH STATION

PUBLIC SCOPING MEETING
ATTENDANCE LOG
May 8, 1996
JOKER'S WILD

Please Print

NAME	AGENCY / AFFILIATION	ADDRESS
Jim McFarland	Jim & Mary's Rv Park	9800 Hwy 93 No.
George J. Tabish	Tabish Bros.	P.O. Box 8448 Msla, MT 59802
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(Cindy) C.R. Woods	Meadows West	10175 George Cates Blvd Msla. MT 59802

MMI #0275.074-020-0214
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May 7, 1996

7.0 AGENCIES WITH JURISDICTION AND CONTRIBUTORS

7.1 List of Agencies with Jurisdiction and/or Permits Required

The Montana Department of Environmental Quality (MDEQ) will require a storm water discharge permit and storm water pollution prevention plan prior to the start of construction of the weigh station.

The US Army Corps of Engineers will require a Clean Water Act Section 404 permit prior to disturbance of any jurisdictional wetland (depends on the final site selected and turn lane configuration).

The MDEQ will require a Section 401 Water Quality Certification prior to disturbance of any jurisdictional wetland (depends on the final site selected and turn lane configuration).

The Montana Department of Fish, Wildlife and Parks may require a Stream Protection Act permit for any work that would affect the bed or banks of O'Keefe Creek (depends on the final site selected and turn lane configuration).

7.2 List of Other Agencies, Persons or Groups Contacted or Who Have Contributed Information

US Environmental Protection Agency
USDA Natural Resource Conservation Service
US Fish and Wildlife Service
US Army Corps of Engineers
Montana Department of Environmental Quality
Montana Department of Natural Resources and Conservation
Montana Department of Fish, Wildlife and Parks
Montana State Historical Preservation Office (SHPO)
Confederated Salish and Kootenai Tribes of the Flathead Valley
Missoula County Office of Planning and Grants
Lake County Planning Department
Lake County Land Services
Historical Research Associates, Inc.
Morrison Maierle, Inc.
Morrison Maierle Environmental Corp.

WHM Transportation

7.3 References

1. Final Environmental Impact Statement and Section 4(f) Evaluation, F 5 1(96) U. S. Highway 93, Evaro-Polson, Missoula and Lake Counties, Montana, 1996

2. Gooby, R., Soil Survey of Missoula Area, Montana, Part I & Part II, USDA-Natural Resources Conservation Service & Forest Service; USDI-Bureau of Indian Affairs & Bureau of Land Management; & State of Montana, November 1995; Lake County Soil Survey, Natural Resources Conservation Service, September 1996

3. Hunnakko, L., Missoula County Office of Planning and Grants, Personal Communication, September 4, 1996

4. Missoula County Conservation District, Missoula County Area, Montana, Index to Map Units, Soil Survey, Aerial Photography, 1982

5. Missoula City-County Health Code, March 22, 1996, and Lake County Health Code, 1996

6. Montana Department of Health and Environmental Sciences, Montana Water Quality, Water Quality Bureau, Montana 305(b) Report to Congress, 1990

7. National Oceanic and Atmospheric Administration, Climate of Montana, Atlas No. 60, 1982

8. Sanderson, Forrest, Floodplain Administrator, Lake County Land Services, Polson, Montana, July 24, 1996

9. Tressler, Paddy, Lake County Planning Department, Personal Communication, September 4, 1996

10. U. S. Geological Survey, Water Data Report Mt-95-1, 1996

11. Veseth, R. & Montagne, C., Geologic Parent Materials of Montana Soils, Montana State University, USDA--Soil Conservation Service, Bulletin 721, November 1980

8.0 LIST OF PREPARERS

This Environmental Assessment was prepared by the Montana Department of Transportation and the Federal Highway Administration with assistance from MDT's consultants (Morrison-Maierle Environmental Corp. and Morrison Maierle, Inc.). The primary agencies and individuals involved included those listed below.

Montana Department of Transportation

Joel M. Marshik, P.E., Environmental Services Manager

Samuel A. Naseem, P.E., Consultant Design Engineer

Drew F. Livesay, Motor Carrier Services Division Manager

Federal Highway Administration

Dale W. Paulson, Environmental Coordinator

Morrison-Maierle Environmental Corp.

Chris Cull, C.E.P., Vice President-Regulatory Services

Jeff Berglund, Senior Environmental Scientist

Larry Brown, Senior Environmental Scientist

Morrison Maierle, Inc.

Bob Beckman, P.E., Senior Transportation Engineer

9.0 DISTRIBUTION LIST OF DOCUMENT

9.1 The following agencies are being sent a copy of this EA:

US Department of Transportation
Federal Highway Administration
301 South Park, Drawer #10056
Helena, MT 59626

State Library
Collections Management Librarian
1515 East 6th Avenue
Helena, MT 59620

Montana Environmental Quality Council
Office of the Director
Capitol Post Office Box 215
Helena, MT 59620

Consolidated Salish and Kootenai Tribes of the Flathead Valley
PO Box 278
Pablo, MT 59855
Attention: Joe Aldegarie

Missoula County Commissioners
200 West Broadway
Missoula, MT 59802-4292

Lake County Commissioners
106 4th Avenue East
Polson, MT 59860-2125

City of Missoula
Office of Planning and Grants
435 Ryman
Missoula, MT 59801
Attention: Jeanie Dixon

9.2 The following individuals are being sent a copy of this EA:

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Missoula, MT 59802

APPENDIX A

ENVIRONMENTAL RECORDS REVIEW

ENVIRONMENTAL RECORDS REVIEW

MCS US Highway 93 Weigh Station Project

Prepared By:

Morrison-Maierle Environmental Corp.
2020 Grand Avenue
Billings, Montana 59102

August 1996

ENVIRONMENTAL RECORDS REVIEW

KNOWN OR SUSPECTED ENVIRONMENTAL CONDITIONS

MDT's consultant researched and reviewed available environmental records in an effort to identify known or suspected areas of contamination which might adversely impact construction of the proposed MCS weigh station at a site located on US Highway 93 in western Montana between Ravalli and the highway intersection with Interstate 90 west of Missoula. The research was originally conducted during the summer of 1996 and was based on the public records and reports available at that time. The research and field reconnaissance was limited to the four (4) defined action alternative sites to be evaluated in an Environmental Assessment.

●	Alternative 2:	O'Keefe Site	Milepost 1.23
●	Alternative 3:	Otoupalak Site	Milepost 3.43
●	Alternative 4:	Evaro Site	Milepost 6.62
●	Alternative 6:	Ravalli Site	Milepost 27.23

The objective of the records review and field reconnaissance was to identify potential regulatory deficiencies and/or violations involving hazardous or otherwise regulated materials on or adjacent to the action alternative sites and to assess the potential adverse impacts resulting from hazardous materials incidents or releases from previous on-site or nearby activities. The American Society of Testing & Materials (ASTM) standard provides guidelines for search distances for the various types of sites. The search distance (e.g., adjoining properties, distances to same, etc.) is identified for each database reviewed.

Following is a summary of federal and state environmental data, provided in part through an environmental research consultant, which identifies environmental problems at sites and activities from the public records maintained by the US Environmental Protection Agency (USEPA) and the Montana Department of Environmental Quality (MDEQ).

National Priorities List Database. The National Priorities List (NPL) is the USEPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or Superfund.

A search of the March 1996 NPL revealed there are no Superfund sites on any of the action alternatives or within the one mile area adjacent to any of the action alternatives.

USEPA RCRA Database. Through the Resource Conservation and Recovery Act (RCRA) program, the USEPA identifies and tracks hazardous wastes from the point of generation to the point of final disposal ("cradle to grave"). The RCRA Information Database (RCRIS) is a compilation of those regulated facilities which have reported that they either generate, store, treat, transport and/or dispose of hazardous wastes.

A search of the February 1996 RCRIS Database revealed no reported facilities that generate, store, treat, transport and/or dispose of hazardous waste on any of the action alternatives or within the one mile area adjacent to any of the action alternatives.

Comprehensive Environmental Cleanup and Responsibility Act (CECRA). In 1989, the Montana Legislature enacted CECRA for the investigation and cleanup of those sites within Montana not eligible for federal funding under CERCLA but still requiring investigation and possible cleanup. As mandated by CECRA, the MDEQ maintains an inventory of facilities subject to investigations concerning likely or threatened releases of hazardous substances from those facilities into the environment.

A review of the April 1996 CECRA database shows no record of the action alternative sites or CECRA sites within the one mile area adjacent to any of the action alternatives.

Registered Underground Storage Tanks. Underground storage tanks are regulated under Subtitle I of RCRA and the Montana Underground Storage Tank Act. USTs must be registered with the state through the MDEQ which is responsible for administering the UST program.

A review of the August 1995 MDEQ List of Registered USTs revealed no listed USTs on any of the action alternative or within the one mile area adjacent to any of the action alternatives. A further review of actual MDEQ records and files confirmed there are no registered USTs on or adjacent to any of the action alternative sites. However, there is one registered home heating oil UST reported at a residence in the Evaro area. This UST is believed to be more than one mile from Alternative 4 and there have been no reported fuel releases associated with this UST. All other USTs reported in the Evaro area have been either removed or otherwise closed. MDEQ records indicate there were no contamination problems reported for these previous USTs.

A number of USTs were previously located at business locations in Ravalli including Jocko Trading Post (formerly Blue Bell Antiques), DuMontier Oil Company, Good's Muffler (formerly Brown's Texaco),BN Microwave Site and MDT Maintenance Shop. All of these USTs have been either removed or otherwise closed.

Leaking Underground Storage Tank List. The MDEQ maintains an inventory of leaking underground storage tanks (LUSTs) with reported or known release locations which includes closures where contamination was discovered, releases from spills, overfills and/or tank leaks.

A review of the September 1995 MDEQ Leaking UST Sites List revealed no reported leaking USTs or related incidents on or adjacent to any of the action alternative sites. A further review of MDEQ records and files indicated that two USTs were removed from the present location of the Jocko Trading Post in April of 1992. This business is located immediately adjacent to the south end of the Ravalli Site (Alternative 6). During removal of the USTs, soil contamination was observed. The contaminated soil was over-excavated and disposed of in accordance with MDEQ requirements. No further investigation or cleanup was required and the status of the site was declared "Resolved" and the file closed in September 1995.

Solid Waste Facilities/Landfill Sites. MDEQ records and files contain an inventory of solid waste disposal facilities and landfills within the state. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

A review of the March 1996 MDEQ List of Solid Waste Disposal Sites and Landfills revealed no such facilities on any of the action alternatives or within the one mile area adjacent to any of the action alternatives.

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APPENDIX B

CULTURAL RESOURCES SURVEY

PHASE I REPORT OF CULTURAL RESOURCES INVESTIGATIONS AT SIX POTENTIAL WEIGH STATION SITES ALONG U.S. HIGHWAY 93, MISSOULA AND LAKE COUNTIES, MONTANA

Prepared for
Morrison Maierle, Inc.
Billings, Montana

by

R. Wayne Thompson, Project Archaeologist
Glenn Walter, Research Archaeologist

HRA
HISTORICAL RESEARCH ASSOCIATES, INC.

Historical Research Associates, Inc.
Missoula, Montana

April 15, 1996

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1.1 INTRODUCTION

Historical Research Associates, Inc. (HRA) has contracted with Morrison Maierle, Inc. of Billings, Montana to conduct cultural resource investigations at six potential Weigh Station sites along U.S. Highway 93 between the communities of Missoula and Ravalli in Missoula and Lake Counties, Montana (Figure 1). The work is being conducted in two phases, phase I being a preliminary field review and background research of all sites, and phase II an intensive inventory of the preferred site alternative. The current report presents the results of HRA's phase I research, along with a comparison of the six sites and recommendations regarding the preferred alternative from a cultural resources perspective.

Table 1 presents summary information for each of the six proposed alternatives.

Table 1. Potential Weigh Station Sites.

Site Name	Milepost	Legal Description	County
1] Muralt's Truck Stop	0.5	T14N, R20W, Sec. 21	Missoula
2] O'Keefe Site	1.23	T14N, R20W, Sec. 16	Missoula
3] Ernie Otoupalak	3.43	T14N, R20W, Sec. 4 and 9	Missoula
4] Evaro	6.62	T15N, R20W, Sec. 26	Missoula
5] Dirty Corner	15.8	T16N, R19W, Sec. 18	Lake
6] Ravalli	27.23	T18N, R20W, Sec. 31 and 32	Lake

2.0 METHODOLOGY

During a preliminary field review, HRA archaeologist Glenn Walter visited each of the six potential Weigh Station sites in January 1996, accompanied by a representative from Morrison Maierle, Inc. This visit established boundaries of the project area, both for background research and later survey of the preferred alternative, and also gave HRA a general impression of standing structures near or on-site which might aid in the interpretation of each site's historic use.

HRA's background research consisted of: 1) a formal request for a review of the Montana Statewide Cultural Resource Inventory by the Montana SHPO to identify previously recorded cultural resource properties in the vicinity of the proposed sites; 2) a review of previous cultural resource inventories conducted along this portion of U.S. Highway 93 to determine the extent of previous field documentation; 3) a review of General Land Office survey plats to identify any potential cultural resource properties in the vicinity of the potential weigh station sites; and 4) submittal of a request for concerns regarding traditional cultural properties in the area of the proposed sites from the Chairwoman of the Confederated Salish and Kootenai Tribes and the heads of the Flathead and Kootenai Culture Committees.

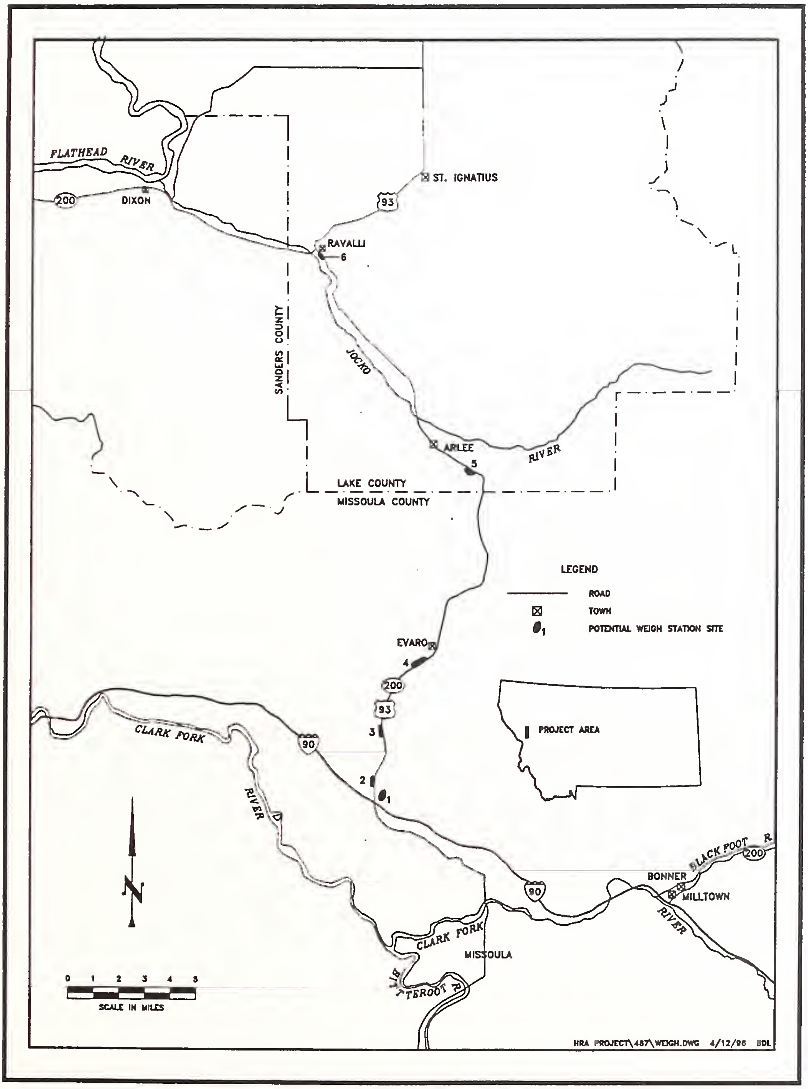

Figure 1. Map of the project area.

Following their March 1996 field review of each potential weigh station site, HRA Project Archaeologist Wayne Thompson met with Terry Tanner of the Flathead Culture Committee and Francis Auld of the Kootenai Culture Committee to discuss the concerns of their respective committees regarding each site. The results of this meeting, and of HRA's other background research are presented below on a site-by-site basis.

3.0 RESULTS OF PHASE I RESEARCH

The following section of the report provides a description of each alternative, a summary of previous cultural resource work in the vicinity of each alternative, and a discussion of the potential of each site for containing previously unidentified cultural resource properties.

3.1 Alternative 1 (Muralt's Truck Stop Site)

Description

The site is situated directly east of Muralt's Truck Stop and Motel (Figure 2). The terrain is hummocky (2-5% slopes) with numerous indications of previous disturbance. The parking area on the western margin of the site area was excavated into the gravels, and most of the material was either removed or dumped as fill to the south. A retention pond was excavated on the north edge of the area and the material apparently removed to an unknown location. Private property and a fence line form the eastern edge of the area, approximately 250 meters east of the parking area. Approximately 125 meters south of the retention pond the slope drops abruptly to Interstate 90. The Morrison Maierle representative indicated that this area is also the location of the drain field that serves the Truck Stop and the Motel. At the time of the field visit, the ground was covered by several inches of snow. However, judging from the dense brush and grass visible through the snow, visibility for surface survey will be near 0%.

Results of Background Research

Two previous cultural resource surveys (Babcock 1988; McCallum 1983) have been conducted in the area. However, there are no sites on file with the Montana SHPO for Section 21 of T14N, R20W, the general area of Alternative 1. Similarly, HRA's review of the GLO survey plats did not reveal any documented cultural features in the proposed site area. The area is labelled simply as "Agricultural Land" (General Land Office 1870).

The representatives from the Flathead and Kootenai Culture Committees each agreed that there was no objection to construction of a weigh station at this site. Of the six potential site locations, this is their second preference.

Based on the results of our background research, we find it unlikely that cultural resource sites will be located at Alternative 1. The site's high terrace location might have served as a camp spot or hunting overlook for Native Americans, but the extent of previous recent disturbance suggests that little would remain of these activities.

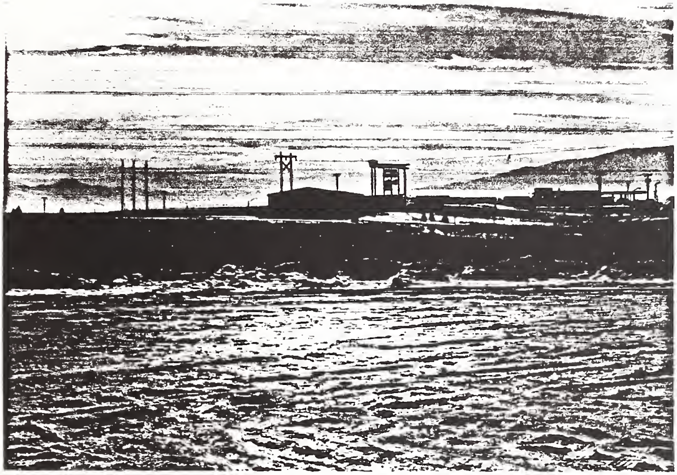

Figure 2. View south of the potential weigh station site at Muralt's Truck Stop (alternative 1).

3.2 *Alternative 2 (O'Keefe Site)*

Description

The site is situated northwest of the intersection of Waldo Road with U.S. Highway 93 (Figure 3). The terrain is level, with slopes averaging 0-2%. The area is approximately 200 meters east-west by 300 meters north-south. It is bordered on the south by Waldo Road, on the east by U.S. Highway 93, on the west by a private driveway and fence line, and on the north by another private lot and fence. The immediate area is undeveloped, but is surrounded by a residential subdivision built over the last 15-20 years, and was probably used as pasture in the past. Because of the snow cover it was impossible to determine during the field visit if the area had been plowed. Ground visibility for surface survey will be low (near 0%), based on the amount of brush and grass visible through the snow.

Results of Background Research

Although there are no sites on file with the Montana SHPO for Section 16 of T14N, R20W, the general area of Alternative 2, two previous cultural resource surveys (McCallum 1983; Moore 1985) have been conducted in the project area.

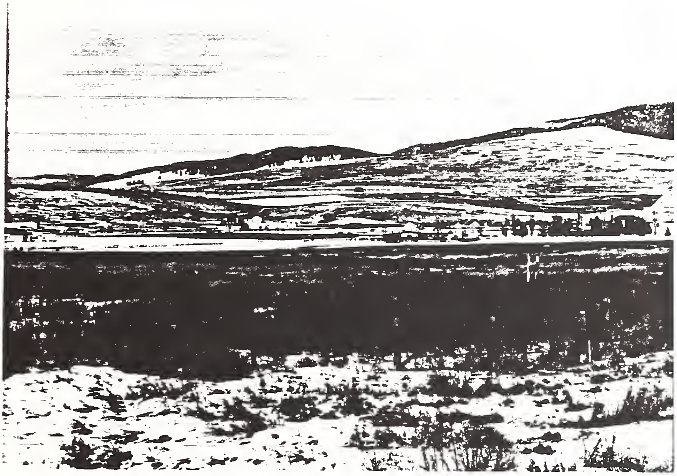

Figure 3. View northwest of the potential weigh station location at the O'Keefe Site (alternative 2).

Review of the GLO survey plats shows the area of Alternative 2 as being immediately north of the intersection of the "Missoula Mills to the Jocko Valley" Road and the then-major westbound route to Frenchtown (General Land Office 1870).

The representatives from the Flathead and Kootenai Culture Committees each agreed that there was no objection to construction of a weigh station at this site. Of the six potential site locations, this is their preferred alternative.

Based on the results of our background research, the most likely cultural material at this site is roadside debris from the intersection to the south. In addition, the site's location at the toe of a ridge along the valley bottom and near a creek make it a possible candidate for the presence of aboriginal cultural materials.

3.3 Alternative 3 (Ernie Otoupalak Site)

Description

This area is situated at the base of Evaro Hill on the west side of U.S. Highway 93 (Figure 4). The area is level, with slopes averaging 0-2%, and measures approximately 125 meters east-west by 250 meters north-south. It is bordered on the east by U.S. Highway 93, on the west by O'Keefe Creek, and on the north and south by private property. A private access road leading to a nearby home bisects the area of interest and there is a large billboard near where the access road meets the Highway. At the time of the field visit the area was fenced and used as pasture for several horses. Limited surface visibility between patches of snow showed the ground to be covered with a dense mat of grass and brush. The wet area near the small stream also contained alder and willow.

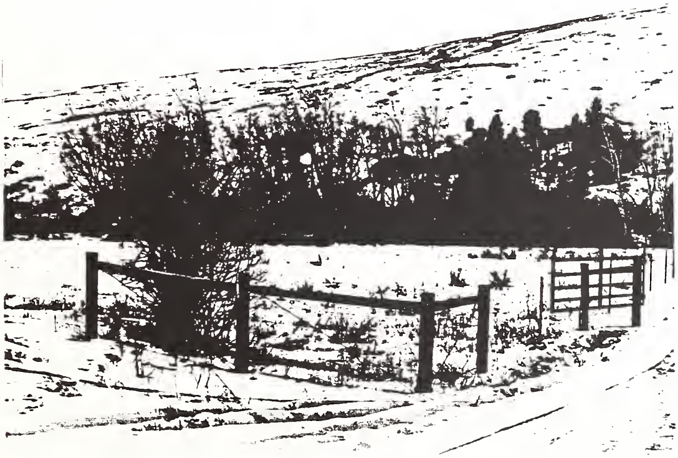

Figure 4. View southwest of the potential weigh station location at the Ernie Otoupalak Site (alternative 3).

Results of Background Research

One previous cultural resource survey (McCallum 1983) has been conducted in Sections 4 and 9 of T14N, R20W, the general area of Alternative 3. In addition, one site is on file with the Montana SHPO (24MO470), a historic railroad bridge dating from the 1880s. However, this site is east of Alternative 3 and beyond the project area.

Review of the GLO survey plats shows the area of Alternative 3 as being bisected by the north-south "Missoula Mills to the Jocko Valley" Road; this route was further west than the present north-south U.S. Highway 93 (General Land Office 1870).

The representatives from the Flathead and Kootenai Culture Committees objected to the construction of a weigh station at this site due to the nearness of culturally sensitive sites identified through Native oral histories.

The site's location on either side of the abandoned "Missoula Mills to the Jocko Valley" Road indicates that roadside litter will likely be present. In addition, any evidence of the road itself may be considered a cultural property and require documentation. As with Alternative 2, the site's location along the valley bottom and near a drainage make it a possible candidate for the presence of aboriginal cultural materials. This is verified by the concerns of the Flathead and Kootenai Culture Committees regarding nearby sites identified by elders.

3.4 Alternative 4 (Evaro Site)

Description

This site is located at the top of Evaro Hill, on the northwest side of U.S. Highway 93 and approximately 75 meters south of the Buck Snort Restaurant and Lounge (Figure 5). The area is generally level, with a slight (2-5%) slope to the south and east. The property is wedge-shaped, with the northeast margin adjacent to the restaurant parking area being the widest at approximately 100 meters. The southeast boundary is approximately 275 meters long and borders U.S. Highway 93. The northwest boundary is along the edge of O'Keefe Creek at the base of a steep slope. The majority of the area is fenced and probably used as pasture. A modern, two story dwelling is located at the southeast corner of the area, but does not appear to be occupied at this time. Although snow covered at the time of this visit, vegetation indicates that surface visibility will be low (near 0%).

Results of Background Research

Two previous cultural resource surveys (GCM 1990; McCallum 1983) have been conducted within Section 26 of T15N, R20W, the general area of Alternative 4. As a result, three sites are on file with the Montana SHPO for Section 26: a historic school (24MO316); a historic recreation/tourism site (24MO317); and, an historic homestead or farmstead (24MO318). However, none of these sites are located within the current project area.

The 1989-1990 survey conducted by GCM (1990:5) included a portion of this alternative. Specifically, the area inventoried for that project included the southeastern-most 45m for archaeological remains and 60m for standing structures. Therefore, the northwestern-most 55m remains unsurveyed.

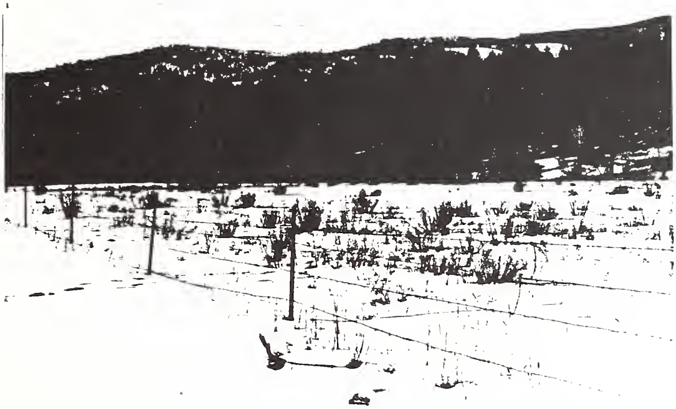

Figure 5. View south of the potential weigh station location at the Evaro Site (alternative 4).

Review of the GLO survey plats shows the area of Alternative 4 as possibly being within the platted area of the community of Evaro, but shows no improvements; its location appears to be between the early developments of Evaro and a brothel (General Land Office 1902). A later GLO survey plat also show no cultural features, but does identify Alternative 4 as within the Flathead Indian Reservation (General Land Office 1906).

The representatives from the Flathead and Kootenai Culture Committees objected to the construction of a weigh station at this site due to the nearness of culturally sensitive sites identified through Native oral histories.

The results of our background research indicate that Alternative 4 is a likely location for both prehistoric and historic cultural remains. The site's location near a branch of O'Keefe Creek, and at the head of the canyon west of Evaro Hill make it a likely spot for the presence of aboriginal cultural remains. Native oral history confirms use of the area by members of the Flathead and Kootenai Tribes. The nearness of previously recorded historic sites and the presence of the community of Evaro immediately to the northeast indicate that historic cultural materials are likely to be encountered.

3.5 Alternative 5 (Dirty Corner Site)

Description

This proposed site is situated approximately 2 miles south of the town of Arlee, on the south side of U.S. Highway 93 (Figure 6). The site is an abandoned State of Montana Rock Pit, and the entire area has been heavily disturbed by quarry activities. The actual rock pit is situated on the east end of the proposed site, but the State maintains a stock pile of gravel material and a modern double-wide trailer for the Ravalli County Deputy who is caretaker for the area at the west end. The Morrison Maierle representative indicated that construction activities would be limited to the bench adjacent to the highway, due to wetland concerns along the creek south of the area. The bench is approximately 250 meters east-west, and 75-100 meters north-south at its widest point. Most of the area (approximately 75%) is covered with thick patches of grass, affording no surface visibility. The remaining 25% of the surface is covered with heavily compacted gravel.

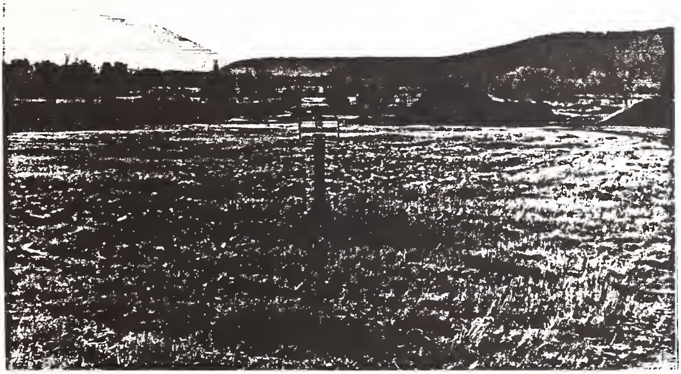

Figure 6. View south of the potential weigh station location at the Dirty Corner Site (alternative 5).

Results of Background Research

Two previous cultural resource surveys (Deaver 1988; Heritage Research Center 1990) have been conducted in Section 18 of T16N, R19W, the general area of Alternative 5. In addition, there are two sites on file with the Montana SHPO for Section 18: a historic irrigation system (24LA122), recommended as ineligible for the National Register of Historic Places; and

a historic railroad (24LA199). According to the current topographic map for the area (USGS 1984a), the potential weigh station site is south of the irrigation ditch and north of the historic railroad.

HRC's survey of the project area (1990:9) has previously covered the 75-100m wide parcel's northeastern-most 60m for archaeological remains and 90m for standing structures. Therefore, the southwestern-most 40m remains unsurveyed.

Review of the GLO survey plats shows Alternative 5 as being contained within a fenced area with a westward-flowing irrigation ditch running nearby; U.S. Highway 93 has moved southwest from its past course, and now separates Alternative 5 from the ditch (General Land Office 1906).

The representatives from the Flathead and Kootenai Culture Committees each agreed that construction of weigh stations on the Flathead Indian Reservation was not preferable. However, if construction on the Reservation is the preferred alternative, Alternative 5 is their third preference of the six sites. Additional tribal review would also be required.

Based on the extent of quarry-related disturbance, we find it unlikely that cultural resources will be encountered at the location of Alternative 5. However, selection of this location on the Flathead Indian Reservation may encounter tribal resistance.

3.6 Alternative 6 (Ravalli Site)

Description

This site is a triangular shaped field on the west side of U.S. Highway 93, directly across from the Bison Inn, in Ravalli (Figure 7). The area is generally level, with slopes averaging 0-2%. The area is bounded on the north by an access road leading to the railroad tracks, on the west by the tracks, the highway on the east, and the narrow south tip borders private property. The longest portion of the area is along the highway, running approximately 300 meters north-south. The northern boundary along the access road is the widest point, measuring approximately 125 meters east-west. Bare ground visibility is very poor (0%) due to the grass cover, but where exposed is indicative of agricultural use, probably a hay field. Although topographic maps indicate that there were several structures in the northeast corner of the area, the only remaining structures adjacent to the proposed site include a modern "Trading Post" at the south end, and a farm complex to the northwest, across the access road.

Results of Background Research

Five previous cultural resource surveys (Caywood 1989; K. Deaver et al. 1988; Decco et al. 1990; HRC 1986, 1990) have been conducted in Sections 31 and 32 of T18N, R20W, the general area of Alternative 6. One of these surveys (HRC 1986) has completely covered the site of Alternative 6. Within Sections 31 and 32, there are ten sites on file with the Montana SHPO:

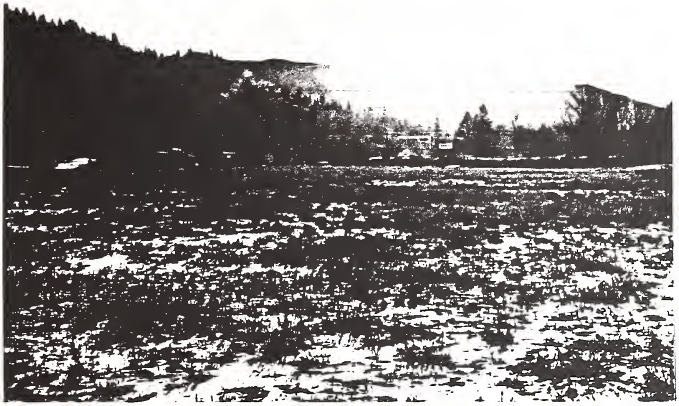

Figure 7. View southeast of the potential weigh station location at the Ravalli Site (alternative 6).

four historic residences (24LA129, 24LA130, 24LA133, and 24LA134); a historic commercial development (24LA132); a historic mining site from the 1910s (24LA218); a historic exploration/settlement site (24LA102); a historic log structure (24LA103); a historic school (24LA131); and, a historic railroad (24LA199). The first six sites were recommended as ineligible for the National Register of Historic Places, while the next three were recommended as eligible, and no recommendation has been made on the final site. The only cultural resource property located immediately within the proposed weigh station site has since been removed. This site (24LA71) was a warehouse associated with the Flathead Irrigation Project (Heritage Research Center 1986:14).

Review of the GLO survey plats shows Alternative 6 as being within the Northern Pacific Railroad's "Depot Grounds" or Station Grounds" (General Land Office 1908, 1910). Several buildings are also shown in the vicinity, including a warehouse and M.H. Prideau's Store, but likely only the depot is included in the proposed site area (General Land Office 1906); this depot building has since been removed.

The representatives from the Flathead and Kootenai Culture Committees each agreed that construction of weigh stations on the Flathead Indian Reservation was not preferable. However, if construction on the Reservation is the preferred alternative, Alternative 6 is their fourth preference of the six sites. Additional tribal review would also be required.

Although Alternative 6 has been thoroughly inventoried, and the only site located has since been removed, additional consultation and tribal involvement has been requested by the Flathead and Kootenai Culture Committees should this site be selected.

4.0 SUMMARY AND MANAGEMENT RECOMMENDATIONS

As the result of the cultural resources background research conducted, HRA recommends that construction of a Weigh Station would be least likely to impact known or potential archaeological sites, or Native oral history sites, at either Muralt's Truck Stop (Alternative 1) or the O'Keefe site (Alternative 2). While previous cultural resource surveys have been conducted in the vicinity of each, neither alternative location contains previously located sites, or potential historic sites as identified through the GLO survey plats.

The remaining four alternative locations are of concern to both the Flathead and Kootenai Culture Committees. Generally, they would prefer not to have the weigh station constructed within the Reservation; Alternatives 4 and 5 are located within the Reservation. Alternatives 3 and 4 are near cultural sites identified through Native oral history, and traffic congestion is a concern for Alternatives 4 and 6. If either of the two Flathead Indian Reservation locations are selected as the preferred alternative, further tribal review and consultation will be required. Representatives from the Culture Committees have requested notification of the preferred alternative, and may wish to participate in the cultural resources field inventory. Regardless of where the weigh station is constructed, the Culture Committees request that they be notified and allowed the opportunity to have cultural resource monitors present for at least initial ground-disturbing activities.

Table 2. Summary of Alternative Site Background Research.

Site	Previously Recorded Cultural Resource Properties in vicinity	Previous Survey nearby	GLO Sites	Tribal Concerns
1	No	Yes (2)	No	No
2	No	Yes (2)	Near major road intersection	No
3	Yes (1)	Yes (1)	Historic road through site	Yes
4	Yes (3)	Yes (2)	Marginal to Historic Evaro townsite	Yes
5	Yes (2)	Yes (2)	Near irrigation ditch	Yes
6	Yes (10)	Yes (5)	Historic depot grounds in Ravalli townsite	Yes

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1902 Survey Plat map, T15N, R20W. On file with the Bureau of Land Management, Billings, MT.

1906 Survey Plat map, T15N, R20W. On file with the Bureau of Land Management, Billings, MT.

1906 Survey Plat map, T16N, R19W. On file with the Bureau of Land Management, Billings, MT.

1906 Survey Plat map, T18N, R20W. On file with the Bureau of Land Management, Billings, MT.

1908 Ravalli Townsite Survey Plat map, T18N, R20W. On file with the Bureau of Land Management, Billings, MT.

1910 Supplemental Survey Plat map, T18N, R20W. On file with the Bureau of Land Management, Billings, MT.

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United States Geological Survey

1964 *7.5 Minute Quadrangle, "Ravalli, Mont."*

1978a *7.5 Minute Quadrangle, "Northwest Missoula, Mont."*

1978b *7.5 Minute Quadrangle, "Primrose, Mont."*

1984a *7.5 Minute Quadrangle, "Arlee, Mont."*

1984b *7.5 Minute Quadrangle, "Evaro, Mont."*

1984c *7.5 Minute Quadrangle, "Saddle Mountain, Mont."*

Phase II Report of Cultural Resources Investigations at Four Potential Weigh Station Sites along U.S. Highway 93, Missoula and Lake Counties, Montana

Prepared for
Morrison/Maierle, CSSA.
Billings, Montana

By
R. Wayne Thompson, Project Archaeologist

HRA
HISTORICAL
RESEARCH
ASSOCIATES,
INC.
Missoula, Montana

August 15, 1996

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PHASE II REPORT OF CULTURAL RESOURCES INVESTIGATIONS AT FOUR POTENTIAL WEIGH STATION SITES ALONG U.S. HIGHWAY 93, MISSOULA AND LAKE COUNTIES, MONTANA

1.1 *Introduction*

Historical Research Associates, Inc. (HRA) has contracted with Morrison Maierle, Inc. of Billings, Montana to conduct cultural resource investigations at six potential Weigh Station sites along U.S. Highway 93 between the communities of Missoula and Ravalli in Missoula and Lake Counties, Montana (Figure 1). The work has been conducted in two phases, Phase I being a preliminary field review and background research of all sites, and Phase II an intensive inventory of the preferred site alternatives. Four alternatives have been recommended for Phase II consideration: Site 2 (O'Keefe site), Site 3 (Ernie Otoupalak site), Site 4 (Evaro site) and Site 6 (Ravalli site). The current report presents the results of HRA's Phase II survey, along with recommendations regarding the preferred alternative from a cultural resources perspective.

2.0 *Methodology*

During phase I of the project, HRA conducted a preliminary field review, background research, and a meeting with members of the Flathead and Kootenai Culture Committees. Table 1 presents HRA's phase I recommendations.

Table 1. Summary of Phase I Findings.

Site	Previously Recorded Cultural Resource Properties in vicinity	Previous Survey nearby	GLO Sites	Tribal Concerns
1	No	Yes (2)	No	No
2	No	Yes (2)	Near major road intersection	No
3	Yes (1)	Yes (1)	Historic road through site	Yes
4	Yes (3)	Yes (2)	Marginal to Historic Evaro townsite	Yes
5	Yes (2)	Yes (2)	Near irrigation ditch	Yes
6	Yes (10)	Yes (5)	Historic depot grounds in Ravalli townsite	Yes

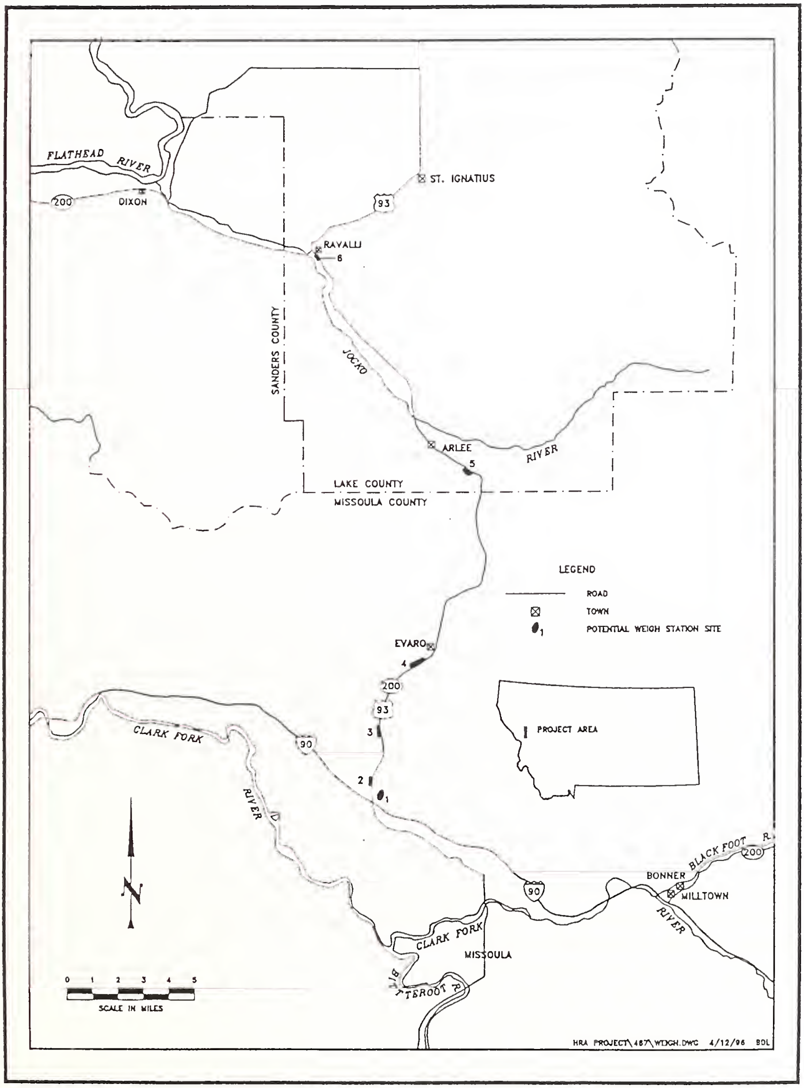

Figure 1. Map of the project area.

HRA conducted field surveys of only two of the Phase II alternative sites; Site 2 and Site 4. For the field survey, Project Archaeologist Wayne Thompson walked the previously unsurveyed portions of these two site areas in 30-meter transect intervals. At both Sites 2 and 4, surface visibility was above 50%, and thus no subsurface testing was conducted.

With regard to the two remaining sites that have been included for consideration in Phase II of the project, the owner of Site 3 has denied access for any further investigations and no further work was necessary at Site 6. Site 6 has been subjected previously to complete cultural resource inventories.

Flathead Culture Committee representative Terry Tanner met with Thompson at each of alternative sites 2 and 4; the Kootenai Culture Committee declined to conduct Phase II site visits, but gave verbal endorsement to any position taken on this issue by the Flathead Culture Committee. The concerns of the Culture Committee are presented in section 4.0 of this report.

3.0 Results of Phase II Field Survey

The following section of the report provides a brief description of the two alternatives subjected to a Phase II field survey, and a discussion of the results of the survey.

3.1 Alternative 2 (O'Keefe Site)

Description

The site is situated northwest of the intersection of Waldo Road with U.S. Highway 93. The terrain is level, with slopes averaging 0-2%. The area is approximately 200 meters east-west by 300 meters north-south. It is bordered on the south by Waldo Road, on the east by U.S. Highway 93, on the west by a private driveway and fence line, and on the north by another private lot and fence. The immediate area is undeveloped and at the time of survey contained a grain crop, but is surrounded by a residential subdivision built over the last 15-20 years.

Results of Phase II Field Survey

The early stage of crop growth provided excellent surface visibility of the plowed ground. Although miscellaneous, non-diagnostic glass and metal roadside debris was located along the eastern margin, survey transects over the area of Alternative 2 did not identify any cultural resource sites.

3.2 Alternative 4 (Evaro Site)

Description

This site is located at the top of Evaro Hill, on the northwest side of U.S. Highway 93 and approximately 75 meters south of the Buck Snort Restaurant and Lounge. The area is generally level, with a slight (2-5%) slope to the south and east. The property is wedge-shaped, between Groom Road and O'Keefe Creek. The northeast margin is approximately 100 meters long and adjacent to the restaurant parking area, while the southeast boundary is approximately 275 meters long and borders U.S. Highway 93. The northwest boundary roughly parallels O'Keefe Creek. The majority of the area is fenced and used as pasture. A modern, two story dwelling is located along the southeastern margin of the area.

Results of Phase II Field Survey

Because previous surveys (GCM 1990; McCallum 1983) have covered the 45 meter wide corridor parallel to U.S. Highway 93, HRA surveyed only the northwest corner of wedge-shaped Alternative 4. The survey area was grass covered, but grazing by horses pastured in the area has reduced the vegetation and loosened earth to provide approximately 75% surface visibility.

HRA's survey of the remainder of Alternative 4 did not reveal any cultural resource sites. However, a log barn and related historic building complex is located approximately 100 meters to the northwest of the proposed weigh station site (Figure 2). Domestic structures beyond Grooms Road to the north are likely associated, and are dated to at least 1947, although the barn appears older. There is no evidence of association between this historic building complex and any structures adjacent to U.S. Highway 93 in the vicinity of the proposed weigh station site. Potential visual impacts to the historic site posed by the project are minimal considering the presence of other modern improvements including a restaurant and residential buildings.

The Flathead Culture Committee representative repeatedly expressed tribal concerns that two culturally-sensitive sites identified through oral history (including a burial location), are within one-quarter mile of the area. Construction of the weigh station facility at this location would be a direct visual impact to these sites.

4.0 Summary and Management Recommendations

HRA's Phase II cultural resource investigations have not identified cultural resource properties within any of the four Phase II alternatives. However, to reiterate, a field survey has not been conducted within Site 3, and the only known cultural resource property previously identified within Site 6 has been removed. Three of the four alternatives included for Phase II review are of concern to both the Flathead and Kootenai Culture Committees. Generally, they would prefer not to have the weigh station constructed within the Reservation; Alternative 6 is

located within the Reservation, and will require further tribal review and consultation if selected. Sites 3 and 4 are near culturally sensitive areas identified through Native American oral history, and traffic congestion is a concern for Alternatives 4 and 6. Table 2 summarizes the concerns regarding the four Phase II alternative sites.

As the result of the Phase II cultural resources investigations, HRA recommends that construction of a weigh station would be least likely to impact archaeological sites or oral history sites at the O'Keefe site (Alternative 2). This location does not contain previously recorded cultural resource properties, or culturally sensitive locations identified by the Flathead and Kootenai Culture Committees.

Regardless of where the weigh station is constructed, the Culture Committees request that they be notified and allowed the opportunity to have cultural resource monitors present for at least initial ground-disturbing activities.

Table 2. Summary of Phase II Findings.

Site	Cultural Resource Properties on site	Tribal Concerns
2	No	No
3	Unknown	Yes
4	No	Yes
6	No	Yes

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APPENDIX C

BIOLOGICAL RESOURCES REPORT

Biological Resources Report

Motor Carrier Services Weigh Station
U.S. Highway 93 - Missoula County

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August 28, 1996

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EXECUTIVE SUMMARY

The Montana Department of Transportation (MDT) and Federal Highways Administration (FHWA) are jointly proposing to construct a truck weigh station at one of four sites under consideration adjacent to U.S. Highway 93 north of Missoula, Montana. The proposed station will weigh vehicles to ensure compliance with highway weight limitations. The project may also include the addition of weigh-in-motion (WIM) technology, which will allow trucks in compliance with weight limitations to bypass the weigh station. Vehicle cargo, licensing documentation, and safety equipment will be reviewed at the proposed weigh station. Additional services will include licensing and permitting.

The new station would consist of an approximate five-acre paved footprint. The project would include construction of the station and related structures, fencing, parking facilities, widening U.S. Highway 93 at the station to provide truck deceleration and acceleration lanes, and possible advanced signilization of station and WIM sensors. Utilities such as telephone and power are accessible at all sites and accommodations would be made for water, storm drainage, and sewer/septic if they are not readily available.

It is the determination of this report that implementation of the proposed action on any of the four alternative sites would not affect the threatened bald eagle (*Haliaeetus leucocephalus*) or endangered peregrine falcon (*Falco peregrinus*). Construction of the weigh station on sites 2, 3, or 6 would not affect the endangered gray wolf (*Canis lupus*) or threatened grizzly bear (*Ursus arctos*). Construction of the weigh station on Site 4 would be not likely to adversely affect the gray wolf or grizzly bear. Westslope cutthroat trout (*Oncorhynchus clarki lewisi*), listed as a species of concern by the Montana Natural Heritage Program (MNHP), are present in O'Keefe Creek, which traverses sites 3 and 4. However, no substantial impacts to this or additional rare and sensitive plant, wildlife, or fish species are anticipated at any of the sites if best management practices are implemented during construction. Wetlands may be affected at sites 3 and 4 (although only indirect impacts are anticipated at Site 3); however, impacts cannot be quantified until site-specific designs are prepared for these sites.

Table 2 at the end of the report presents a comparison of alternative sites relative to their respective potential to affect biological resources.

INTRODUCTION

The Montana Department of Transportation (MDT) and Federal Highways Administration (FHWA) are jointly proposing to construct a Motor Carrier Services (MCS) truck weigh station at one of four sites under consideration adjacent to U.S. Highway 93 north of Missoula, Montana. Six prospective weigh station sites were originally examined with respect to biological resources (Figure 1); MDT eliminated two of these from further consideration due to operational constraints.

The six alternative weigh station sites occur immediately adjacent to U.S. Highway 93 and are scattered from the truckstop near the intersection of Interstate 90 and U.S. Highway 93 (milepost [MP] 0.5) to Ravalli (MP 27.23). Three sites occur between the I-90/US 93 interchange and the mouth of the O'Keefe Creek "canyon"; remaining sites occur at Evaro, Arlee, and Ravalli. The latter two sites occur within the Flathead Indian Reservation. The Arlee site is owned by the state of Montana; the remaining five sites are privately owned. Alternative sites are listed by milepost below.

Site #	*Site Name*	*U.S. Highway 93 Milepost*
1	Muralt's Truckstop	0.05 (east side)
2	O'Keefe Property	1.23 (west side)
3	Otoupalak Property	3.43 (west side)
4	Klepper Property	6.62 (west side)
5	Arlee Site	15.8 (west side)
6	Ravalli Site	27.23 (west side)

Sites 1 (Muralt's Truckstop) and 5 (Arlee) were eliminated from further consideration due to primarily operational considerations. Consequently, only Sites 2 (O'Keefe), 3 (Otoupalak), 4 (Klepper), and 6 (Ravalli) were considered viable alternatives and are discussed further in this report.

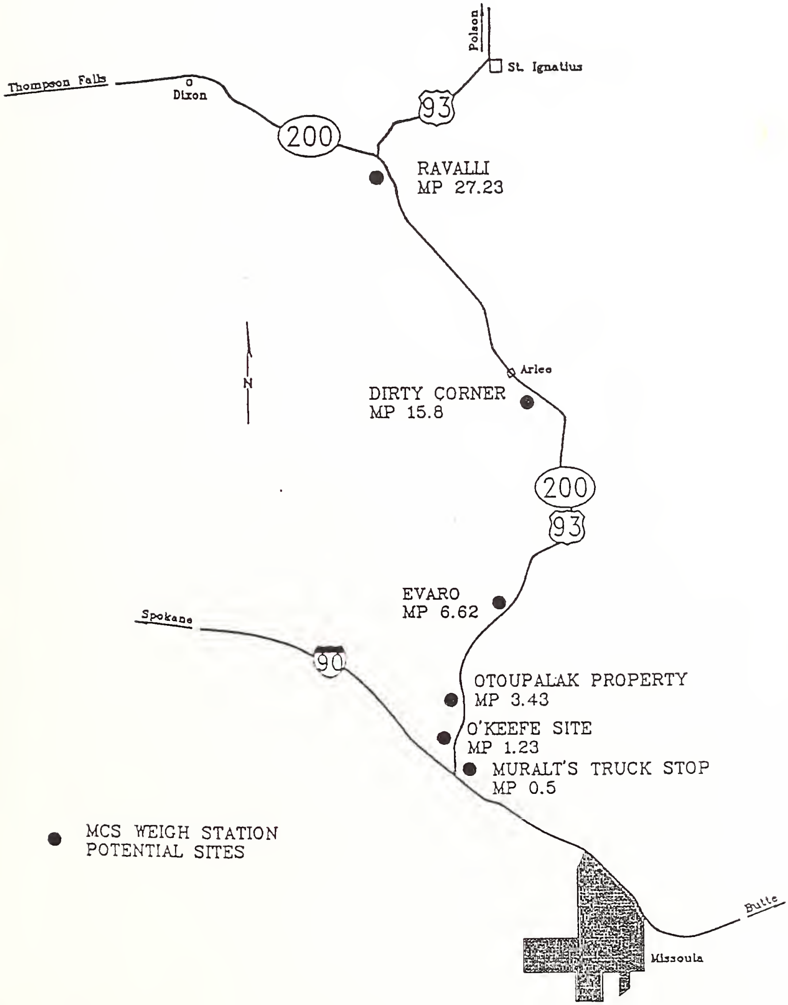
PROJECT and GENERAL AREA DESCRIPTION

The intent of the project is to provide a new truck weigh station on U.S. Highway 93 north of Missoula to replace an existing out-dated weigh station that occurs along U.S. Highway 93 near Lolo. The proposed station will weigh vehicles to ensure compliance with highway weight limitations. The project may also include the addition of weigh-in-motion (WIM) technology, which will allow trucks in compliance with weight limitations to bypass the weigh station. Vehicle cargo, licensing documentation, and safety equipment will be reviewed at the proposed weigh station. Additional services will include licensing and permitting.

The new station would consist of an approximate five-acre paved footprint; conceptual weigh station designs are presented in Figure 2. The project would include construction of the station and related structures, fencing, parking facilities, widening U.S. Highway 93 at the station to provide truck deceleration and acceleration lanes, and possible advanced signilization of station and WIM sensors. Utilities such as telephone and power are accessible at all sites and accommodations would be made for water, storm drainage, and sewer/septic if they are not readily available.

Between the I-90/US 93 interchange and Arlee, the project area is primarily dominated by commercial, residential, and agricultural development bordered by open prairie and coniferous

Figure 1
Alternative MCS Weigh Station Sites



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MAIERLE, INC.

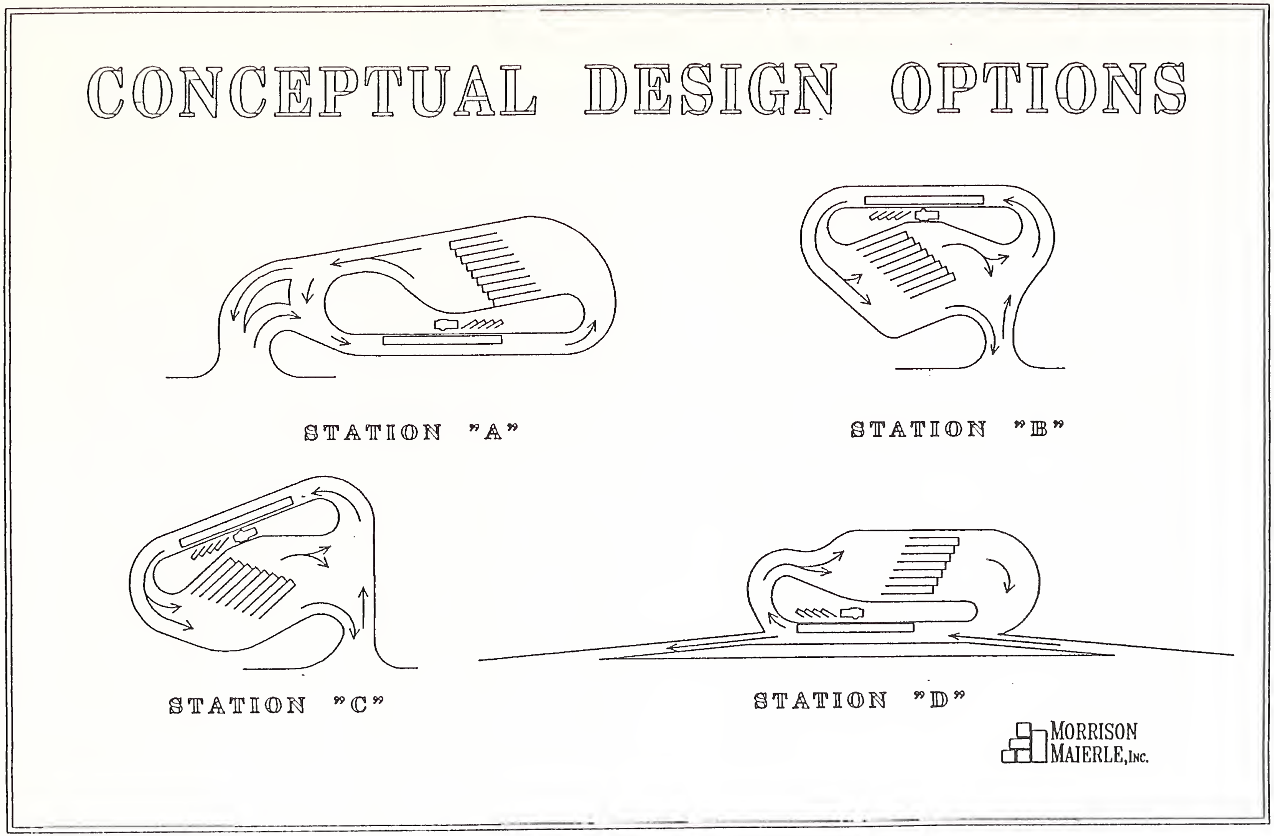


Figure 2
Conceptual MCS Weigh Station Design Options

forest. From the community of Arlee, the highway corridor crosses the Jocko River and a low open bench in the northern Jocko Valley. North of the Jocko Valley, the highway corridor enters the narrow, steep-sided Ravalli Canyon where the existing highway and a railroad closely parallel the Jocko River in a constricted passage excavated into the canyon walls. At Ravalli, the project area is again primarily dominated by commercial, residential, and agricultural development. Farming, ranching, commercial and residential development, and recreation are among the principle land uses of the U.S. Highway 93 corridor.

STUDY METHODS

Agency Consultation and Literature Review

Requests for information pertaining to endangered, threatened, and sensitive plant and animal species were sent to the Montana Natural Heritage Program (MNHP). The U.S. Fish & Wildlife Service (USFWS) 1994 map and 1995 list by county depicting the distribution of listed, proposed, and category 1 candidate threatened and endangered species in Montana was reviewed, as were the biological assessment (BA; Morrison-Maierle Environmental [MME] 1995) and the preliminary final environmental impact statement (EIS; Morrison-Maierle Incorporated [MMI] 1996) prepared for the proposed U.S. Highway 93 expansion from Evaro to Polson. Montana Department of Fish, Wildlife & Parks (MDFWP) and Confederated Salish & Kootenai Tribes (CSKT) biologists were interviewed. Additionally, a review of pertinent literature was conducted.

Field Survey

Reconnaissance-level field surveys were conducted on January 11 and May 31, 1996. With the exception of Site 3, on which access was denied, each of the sites was examined on foot while surveying for wildlife and sign, such as tracks, scat, and nest structures. Site 3 was examined to the extent possible from the adjacent highway right-of-way.

Wetlands were preliminarily identified using National Wetland Inventory maps. With the exception of Site 3, all alternative sites were examined for wetland vegetation during the field reconnaissance in accordance with the 1987 U.S. Army Corps of Engineers (COE) Wetlands Delineation Manual (Environmental Laboratory 1987). The wetland indicator status of vegetation was derived from the National List of Plant Species that Occur in Wetlands: Northwest (Region 4) (Reed 1988). Vegetation on Site 3 was examined to the extent possible from the U.S. Highway 93 ROW; wetlands on this site were primarily mapped based upon aerial photograph interpretation.

STUDY RESULTS

Terrestrial Resources: Vegetation and Wildlife

General Description. According to a vegetation classification system developed by Payne (1973), the alternative sites occur in "intermountain valley grassland and meadow" bordered by "western Montana ponderosa pine forest". Each of the sites, however, has been mostly converted for agricultural or commercial use and/or has been recolonized by weedy ruderal plants. Dominant species on these sites include orchardgrass (*Dactylis glomerata*), western wheatgrass (*Agropyron smithii*), smooth brome (*Bromus inermis*), Kentucky bluegrass

(*Poa pratensis*), alfalfa (*Medicago sativa*), spotted knapweed (*Centaurea maculosa*), thistle (*Cirsium* sp.), tumblemustard (*Norta altissima*), and clover (*Melilotus* sp.).

Wildlife species inhabiting the project area (e.g., the U.S. Highway 93 corridor between sites 1 and 6) are typical of those which occur in grasslands and ponderosa pine forests of western Montana. According to Thompson (1982), 60 mammal species are known or suspected to occur in the latilong (an approximate 3200-square mile block of land measuring one degree longitude by one degree latitude) which contains all of the alternative sites. Mule (*Odocoileus hemionus*) and white-tailed (*Odocoileus virginianus*) deer, black bear (*Ursus americanus*), striped skunk (*Mephitis mephitis*), badger (*Taxidea taxus*), coyote (*Canis latrans*), thirteen-lined groundsquirrel (*Spermophilus tridecemlineatus*), porcupine (*Erethizon dorsatum*), raccoon (*Procyon lotor*), white-tail jackrabbit (*Lepus townsendii*), and meadow vole (*Microtus pennsylvanicus*) are common mammals in the general area. No mammals were observed during the survey; however, deer tracks were observed at all sites.

Based on a recent MNHP compilation (Reichel 1994), amphibians likely to occur in the project area include the long-toed salamander (*Ambystoma macrodactylum*), tailed frog (*Ascaphus truei*), and spotted frog (*Rana pretiosa*) near wetland and stream habitats. Northern alligator lizard (*Elgaria coerulea*), gopher snake (*Pituophis melanoleucus*), and western garter snake (*Thamnophis elegans*) are reptiles likely to inhabit the project area.

Bergeron et al. (1992) list nearly 200 bird species that are known or suspected to breed in the latilong containing the alternative weigh station sites. Many of these species, however, occur in habitat types not found on any of the sites, such as large lakes, riverine areas, forested areas, and large marsh/pothole complexes. Birds commonly observed during the reconnaissance survey included American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), black-capped chickadee (*Parus atricapillus*), and red-tailed hawk (*Buteo jamaicensis*). Each of the sites is probably used to some degree by foraging raptors.

Likely representative breeders in the project vicinity in addition to those listed above include killdeer (*Charadrius vociferus*), western meadowlark (*Sturnella neglecta*), house sparrow (*Passer domesticus*), northern harrier (*Circus cyaneus*), American robin (*Turdus migratorius*), mallard (*Anas platyrhynchos*), Canada goose (*Branta canadensis*), mourning dove (*Zenaida macroura*), savannah sparrow (*Passerculus sandwichensis*), and great horned owl (*Bubo virginianus*).

Site 2 - O'Keefe Property. Site 2 (Photo Plate 1, Appendix A) consists of a large, flat field bordered to the east by U.S. Highway 93 and bordered by residential development immediately to the west, south, and north. Dominated by knapweed, kochia (*Kochia scoparia*), smooth brome, wheatgrass, and thistle during the January survey and completely cleared during the May survey, the site provides little in terms of wildlife habitat. Existing development adjacent to the sites further inhibits wildlife use. A red-tailed hawk was observed flying over the site during the May reconnaissance survey.

Site 3 - Otoupalak Property. The Otoupalak property (Photo Plate 2, Appendix A) is bordered to the east by U.S. Highway 93 and contains several residential buildings, mostly along its western edge. The site is bisected into north and south halves by an east-west running gravel access road. O'Keefe Creek runs roughly northeast-southwest through the entire site (Figure 3).

As viewed from the highway ROW (access to the property was denied), the south half of the site

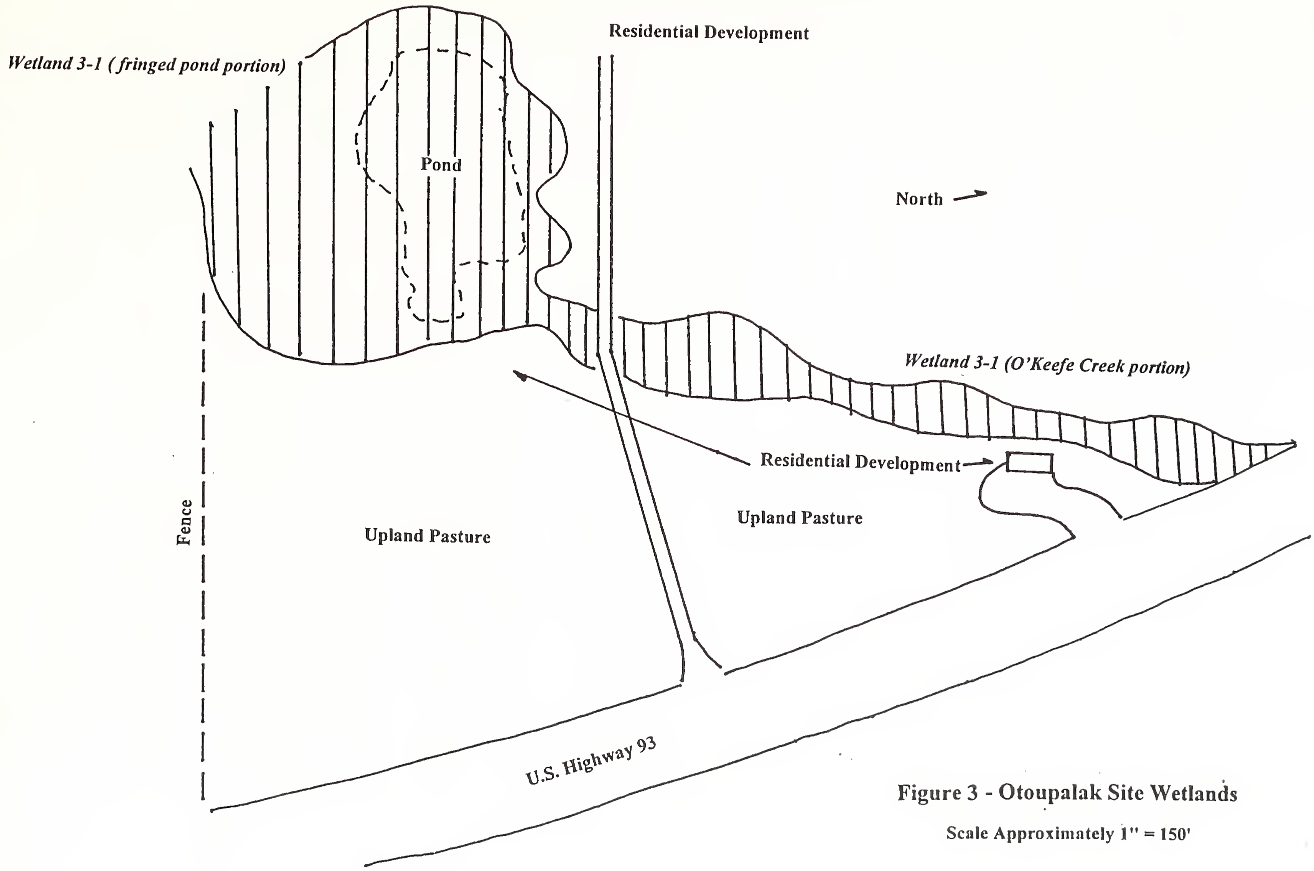


Figure 3 - Otoupalak Site Wetlands

Scale Approximately 1" = 150'

is mostly flat and is dominated by knapweed, wheatgrass, and smooth brome. An extensive riparian area dominated by black cottonwood (*Populus trichocarpa*) with dense wavey-leaved alder (*Alnus sinuata*), quaking aspen (*Populus tremuloides*), willow (*Salix* sp.) and hawthorn (*Crataegus* sp.) borders O'Keefe Creek and a large pond near the west property border (Figure 3). The north half of the site also consists largely of upland pasture and is bisected by O'Keefe Creek. Dense riparian vegetation occurs adjacent to the creek, and a house occurs next to the creek near U.S. Highway 93. A new building is currently under construction immediately east of the creek on the south half of the property

The property likely receives considerable wildlife use along O'Keefe Creek; particularly by deer. MDT has installed SWAREFLEX deer reflectors along the property where O'Keefe Creek crosses under U.S. Highway 93 in an attempt to reduce deer/vehicle accidents in the area. Numerous additional species likely use the riparian fringe along the creek as a travel corridor through the valley. Based on aerial photographs, the large pond and forested fringe immediately west of the creek in the southwest portion of the site is also likely attractive to a variety of wildlife species for breeding, nesting/denning, and foraging activities.

Wildlife use of the upland portions of the site (e.g., cleared pastures and residential areas) is probably not extensive due to lack of habitat diversity and proximity to existing sources of human disturbance.

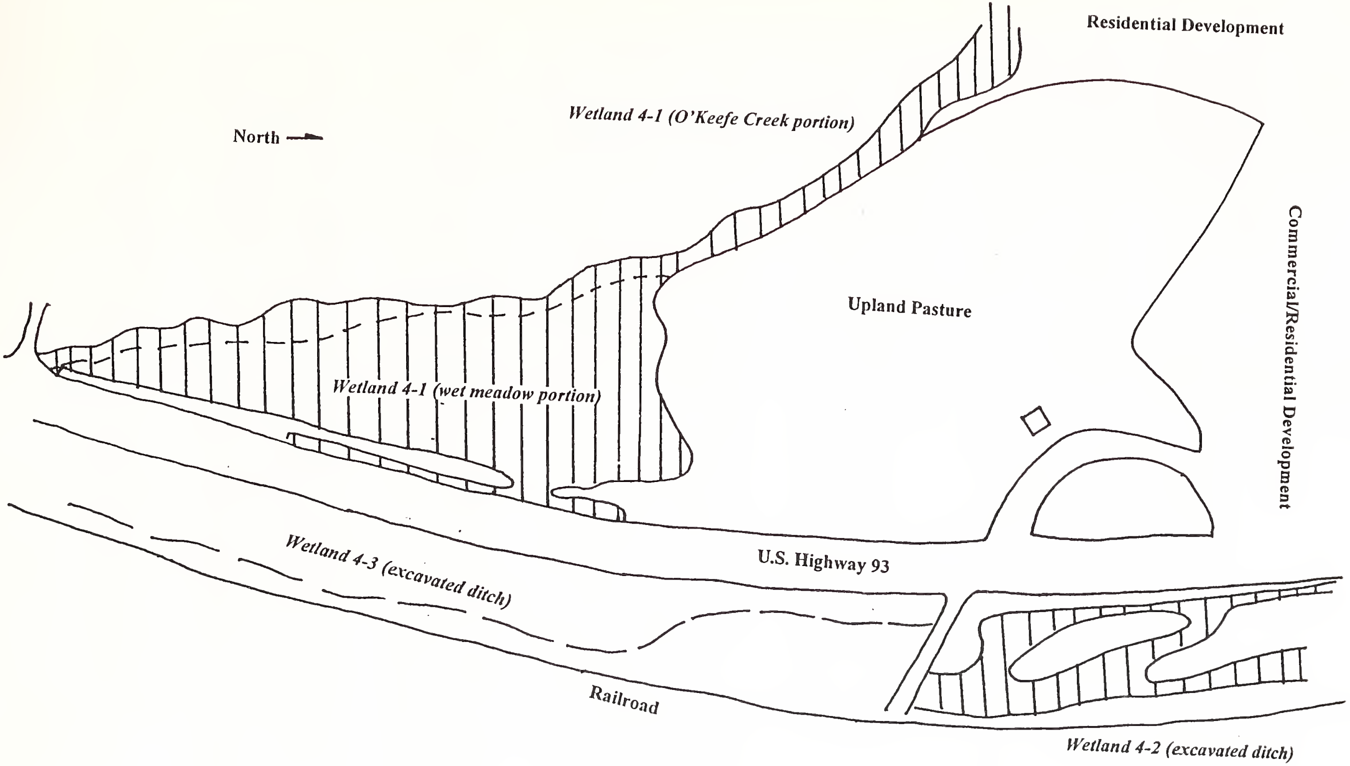
Site 4 - Klepper Property. The Klepper site (Photo Plate 3, Appendix A) consists of a flat pasture bordered by U.S. Highway 93 to the east, commercial development to the north, and O'Keefe Creek and coniferous forest to the west (Figure 4). An overhead power line bisects the site from north to south. The north half of the pasture is dominated by wheatgrass, smooth brome, and knapweed, while the south half is dominated by smooth brome in association with wetland grasses and forbs (see Wetlands section). The riparian/wetland fringe along O'Keefe Creek is dominated by dense wavey-leaved alder (*Alnus sinuata*) and hawthorn (*Crataegus* sp.) with a sedge-dominated (*Carex* sp.) understory.

Similar to Site 3, wildlife use on Site 4 likely primarily occurs along O'Keefe Creek and its dense riparian fringe and in the wet meadow portion on the south half of the pasture. Numerous black-capped chickadees and deer tracks were observed along the creek during the field reconnaissance. Wildlife use of the upland portion of the pasture itself is probably not extensive due to lack of habitat diversity and proximity to existing sources of human disturbance which include the highway and residential and commercial development.

Site 6 - Ravalli Site. The Ravalli site (Photo Plate 1, Appendix A) occurs near the intersection of U.S. Highway 93 and Montana Highway 200. This triangular field is bordered by U.S. Highway 93 and commercial development to the east, a gravel access road and residential development to the north, and a railroad grade to the west and south. The site appears to be used primarily for hayland and pasture, as it is dominated by alfalfa, orchardgrass, and Kentucky bluegrass. A small forested/shrub patch of maple (*Acer* sp.), mountain ash (*Sorbus* sp.), snowberry (*Symphoricarpus albus*), western serviceberry (*Amelanchier alnifolia*), and rose occurs in the extreme northeast corner of the site.

Similar to previously discussed sites, wildlife use at this appears to be limited due to lack of habitat and proximity to sources of human disturbance. Deer are likely attracted to the site by the alfalfa, as evidenced by numerous tracks observed during the survey.

Rare & Sensitive Species. A search of the MNHP database revealed no known



North
Residential Development
Wetland 4-1 (O'Keefe Creek portion)
Commercial/Residential Development
Upland Pasture
Wetland 4-1 (wet meadow portion)
U.S. Highway 93
Wetland 4-3 (excavated ditch)
Railroad
Wetland 4-2 (excavated ditch)

Figure 4 - Klepper Site Wetlands

Scale Approximately 1" = 200'

occurrences of plant or animal species of concern on any of the alternative parcels (MNHP 1995). However, three species, cup clover (*Trifolium cyathiferum*), Townsend's big-eared bat (*Plecotus townsendii*), and westslope cutthroat trout (*Oncorhynchus clarki lewisi*), have been documented within three miles of some of the sites. Cup clover and Townsend's big-eared bat are discussed below. Westslope cutthroat trout are discussed under Aquatic Resources.

Cup clover has been assigned a state rank of "S1" by the MNHP, which considers this species critically imperiled in Montana due to extreme rarity (5 or fewer occurrences). At the global (range-wide) level, this species has been assigned a rank of "G4", meaning that it is demonstrably secure, although quite rare in parts of its range. Cup clover was observed along a railroad grade approximately one mile east of U.S. Highway 93 south of Evaro in 1960. Due to the heavily disturbed/modified nature of each of the four sites, cup clover and other rare plants are not expected in areas of likely construction (e.g., pastures).

Townsend's big-eared bats have been observed roosting as recently as 1995 in a mine adit approximately one mile north of Site 6 in Ravalli. This species has been assigned a state rank of "S2S3" by the MNHP, which considers this species imperiled or vulnerable in Montana due to rarity (6 to 100 occurrences) or other factors making it vulnerable to extinction. At the global (range-wide) level, this species has been assigned a rank of "G4". Due to the lack of primary habitat (caves, mine shafts, cliff crevices), this species is not expected on any of the four alternative sites.

Additional species, such as black-crowned night heron (*Nycticorax nycticorax*), yellow-billed cuckoo (*Coccyzus americanus*), black-backed woodpecker (*Picoides arcticus*), Cassins kingbird (*Tyrannus vociferans*), and boreal chickadee (*Parus hudsonicus*) may be associated with the dense riparian/wetland fringe along O'Keefe Creek on Sites 3 and 4 and the large pond and adjacent shrub/forested fringe on Site 3. Several other species, including bald eagle, peregrine falcon, northern goshawk (*Accipiter gentilis*), great gray owl (*Strix nebulosa*), gray wolf, fisher (*Martes pennanti*), wolverine (*Gulo gulo*), grizzly bear, and lynx (*Felis lynx*) may occasionally occur in the general project corridor, but are not known or expected to frequent any of the four sites. Federally-listed threatened and endangered species are further discussed under Threatened and Endangered Species.

Impacts. Four conceptual weigh station designs are presented in Figure 2. Site-specific plans have generally not been prepared for individual alternative sites. However, a detailed plan (station "A" on Figure 2) prepared by MDT for Site 6 (Ravalli Site) was used as a general model for assessing impacts at all of the sites. Based on the Station A design, the proposed project would result in the clearing and paving of approximately five acres of existing vegetation at each of the sites.

The weigh station would be constructed to accommodate existing and anticipated truck traffic on U.S. Highway 93, and is therefore not expected to substantially increase truck traffic in the general project corridor. Consequently, construction of the weigh station at any of the sites is not expected to substantially affect current wildlife-vehicle collision rates. Similarly, construction on any of the sites is not likely to substantially affect wildlife by way of disturbance and displacement as the impact area would be very confined and habitat similar to that which would be affected is abundant in the project vicinity at all sites. Impacts specific to each site are discussed below.

Site 2 - O'Keefe Property. Construction at this site would result in the conversion of an estimated five acres of ruderal vegetation into impervious surface. Wildlife use

levels and habitat quality of the site and immediate surrounding area are low. Consequently, any impacts to existing vegetation and wildlife resulting from the proposed action would be extremely minor. No rare or sensitive plant or wildlife species are expected to be affected by construction on this site.

Site 3 - Otoupalak Property. For purposes of analysis, it was assumed that facilities would be oriented on this site such that direct impacts to O'Keefe Creek and its riparian/wetland fringe would be avoided. This may be possible by constructing facilities similar to those represented by Station A and Station D on Figure 2.

Construction on this site would result in the conversion of an estimated five acres of grassland/knapweed community into impervious surface adjacent to O'Keefe Creek and its associated riparian/wetland fringe. Wildlife use levels and habitat quality of the immediate construction site (e.g., construction "footprint" area) are low. Consequently, direct impacts to existing vegetation and wildlife resulting from the proposed action would be minor.

Habitat quality, however, appears relatively high along O'Keefe Creek and the large pond in the southwest portion of the property. Increased noise and human activity resulting from construction of the weigh station in close proximity to the creek and pond would likely reduce general wildlife use of these areas, as well as habitat suitability for sensitive wildlife species. However, no rare or sensitive plant or wildlife species are expected to be directly affected by construction on this site.

Potential impacts to fisheries, wetlands, and threatened and endangered species are discussed elsewhere in this report.

Site 4 - Klepper Property. For purposes of analysis, it was assumed that facilities would be oriented on this site such that direct impacts to O'Keefe Creek and its riparian/wetland fringe would be avoided. This may be possible by constructing facilities similar to those represented by any of the four conceptual designs on Figure 2; however, impacts to the large wet meadow in the south portion of the site (Figure 3) would likely occur unless a design similar to Station C (Figure 2) were constructed in the north portion of the site.

Construction on this site would result in the conversion of an estimated five acres of grassland/knapweed pasture, and possibly some of the large wet meadow, into impervious surface adjacent to O'Keefe Creek and its associated riparian area. Wildlife use levels and habitat quality of the immediate construction site are relatively low. Consequently, direct impacts to existing vegetation and wildlife resulting from the proposed action would be minor.

Habitat quality, however, is relatively high along O'Keefe Creek. Increased noise and human activity resulting from construction of the weigh station in close proximity to the creek would likely reduce general wildlife and sensitive species use of the riparian/wetland corridor. No rare or sensitive plant or wildlife species are expected to be directly affected by construction on this site.

Potential impacts to fisheries, wetlands, and threatened and endangered species are discussed elsewhere in this report.

Site 6 - Ravalli Site. Construction at this site would result in the conversion of an estimated five acres of hayland/pasture into impervious surface. Additionally, a small (less than 0.1 acre) forested/shrub patch dominated by maple would be lost in the extreme northwest

corner of the site.

Wildlife use levels of the site are low due to the proximity of existing sources of human disturbance and lack of habitat diversity. Consequently, any impacts to existing vegetation and wildlife resulting from the proposed action are expected to be minor.

The Townsend's big-eared bat colony in a mine adit approximately 0.5 miles north of the site would not be directly or indirectly affected by construction of the weigh station at Site 6. No additional rare or sensitive plant or wildlife species are expected to be affected by construction on this site.

Aquatic Resources: Streams, Fish, and Wetlands

General Description. Numerous streams occur along the U.S. 93 corridor between the I-90/U.S. 93 intersection and Ravalli. These include O'Keefe Creek, Frog Creek, Finely Creek, Schley Creek, East Fork Finely Creek, Agency Creek, Jocko River, (Jocko) Spring Creek, and several unnamed drainages. Many of these streams are perennial, and contain game fish species such as rainbow (*Oncorhynchus mykiss*), brown (*Salmo trutta*), brook (*Salvelinus fontinalis*), and cutthroat trout. Non-game fish species within the corridor include northern squawfish (*Ptychocheilus lucius*), longnose dace (*Rhinichthys cataractae*), sculpin (*Cottus* sp.), and redside shiner (*Notropis lutrensis*). Wetlands are associated with many of these streams, drainages, and seeps and also occur in roadside ditches along the highway corridor.

Wetlands occur on Sites 3 and 4 (Figures 3 and 4, Photo Plates 2 and 3). Representative completed Routine Wetland Determination Data Forms are provided in Appendix B, as are completed Montana Wetland Field Evaluation Forms (Berglund 1996) The evaluation form assigns numerical values to wetland functions and provides an overall rating of Category I (exceptional rating), II (high), III (moderate), or IV (low) for each wetland evaluated. Ratings and scores for function and value parameters evaluated at each wetland are summarized below in Table 1.

Site 2 - O'Keefe Property. No streams or wetlands occur on or immediately adjacent to this property.

Site 3 - Otoupalak Property. As previously described, both the north and south halves of this site are traversed in their entirety by O'Keefe Creek, which is bordered by an extensive shrub riparian/wetland fringe (Figure 3). O'Keefe Creek supports a genetically pure population of westslope cutthroat trout throughout its length (MNHP 1996; Workman pers. comm.). Consequently, any potential impacts to the stream are of considerable concern to MDFWP (Workman pers. comm.).

Based on the field reconnaissance from the adjacent highway ROW and interpretation of aerial photographs, forested and scrub/shrub wetlands were mapped on this property in immediate association with O'Keefe Creek and an approximate 1-acre pond in the southwest portion of the property (Wetland 3-1; Figure 3). The wetland along the creek appeared to be dominated by willow, wavey-leaved alder, quaking aspen, hawthorn, and other shrub species. Mature black cottonwoods dominate the portion of the wetland associated with the large pond west of the creek. Due to access denial, wetlands could not be conclusively delineated during the reconnaissance survey. Consequently, no routine wetland delineation forms were completed for this site.

Table 1
Ratings and Scores for Wetland Function and Value Parameters
MCS Weigh Station

Function & Value Parameters	Site 3 - Otoupalak	Site 3 - Otoupalak	Site 4 - Klepper	Site 4 - Klepper	Site 4 - Klepper
	3-1, O'Keefe Creek Portion	3-1, Pond Portion	4-1, O'Keefe Creek Portion	4-1, Wet Meadow Portion	4-2 and 4-3, Excavated Ditches
T & E Species Habitat	Mod (.7)	Mod (.7)	Mod (.7)	Low (.3)	None (0)
Sensitive Species Habitat	High (1)	Mod (.7)	High (1)	None (0)	None (0)
General Wildlife Habitat	High (.9)	High (1)	High (.9)	Mod (.4)	Low (.1)
Fish/Aquatic Habitat	High (1)	High (1)	High (1)	NA	NA
Flood Attenuatiuon/Storage	High (.8)	High (.9)	High (.8)	Mod (.5)	Low (.1)
Sediment/Nutrient/Toxicant Removal	High (1)	High (1)	High (1)	High (1)	High (1)
Sediment/Shoreline Stabilization	High (1)	NA	High (1)	NA	Mod (.7)
Production Export/Food Chain Support	High (.8)	High (.9)	High (.8)	Mod (.5)	Low (.3)
Groundwater Discharge/Recharge	High (1)	NA	High (1)	Low (.1)	Low (.1)
Uniqueness	Low (.2)	Mod (.5)	Low (.2)	Low (.3)	Low (.2)
Recreation/Education Potential	Low (.2)	Low (.2)	Low (.2)	Low (.1)	Low (.1)
Dynamic Surface Water Storage	NA	NA	NA	NA	NA
Actual Score/Possible Score	8.6/11	6.9/9	8.6/11	3.2/9	2.6/10
Overall Rating	II	II	II	III	IV

Based on aerial photographs and observations from the highway ROW, the Montana Wetland Field Evaluation Form was completed for the O'Keefe Creek and pond-associated portions of Wetland 3-1. Both portions of the wetland rated as Category II sites (Table 1).

As observed from the highway ROW, no wetlands are expected on the south or north halves of the property between the highway and the O'Keefe Creek wetlands as these areas were obviously dominated by upland species including knapweed, wheatgrass, and smooth brome.

Site 4 - Klepper Property. O'Keefe Creek and its associated riparian/wetland fringe traverse this site from north to south along the west edge of a large pasture. As mentioned above, O'Keefe Creek supports a genetically pure population of westslope cutthroat trout throughout its length (MNHP 1996; Workman pers. comm.). Consequently, any potential impacts to the stream are of considerable concern to MDFWP (Workman pers. comm.).

Three wetlands were identified on or adjacent to the Klepper property. Wetland 4-1 consists of the riparian/wetland fringe along O'Keefe Creek and an associated 5-acre wet meadow in the south portion of the property (Figure 4). Adjacent to O'Keefe Creek, the wetland is dominated by dense wavey-leaved alder and hawthorn with a sedge-dominated understory. The wet meadow portion of Wetland 4-1, which was flooded by the creek during the survey, is comprised of a patchy mosaic of wetland and upland grasses and forbs, including smooth brome, sedges, field horsetail (*Equisetum arvense*), mare's tail (*Hippuris vulgaris*), Kentucky bluegrass, meadow foxtail (*Alopecurus geniculatus*), northwest cinquefoil (*Potentilla gracilis*), wild onion (*Allium* sp.), and few-flowered shooting star (*Dodecatheon pulchellum*).

Wetlands 4-2 and 4-3 occur within excavated ditches along the east side of U.S. Highway 93 between the highway and a railroad grade (Figure 4). These linear sites are dominated by sedges, rushes, and broad-leaf cattail (*Typha latifolia*).

Routine Wetland Determination Data Forms and Montana Wetland Field Evaluation Forms completed for these wetlands are included in Appendix B. Functions and values of the wet meadow and O'Keefe Creek portions of Wetland 4-1 were evaluated separately. Functions and values for all identified wetlands are summarized in Table 1.

Site 6 - Ravalli Site. No streams or wetlands occur on or immediately adjacent to this site. The Jocko River occurs approximately 0.1 mile south of the railroad grade and access road that form the site's southern border.

Rare & Sensitive Species. A search of the MNHP database revealed the presence of westslope cutthroat trout in O'Keefe Creek, which traverses Site 3 (MNHP 1995). Westslope cutthroat trout have been assigned a state rank of "S3" by the MNHP. Species are assigned this rank because they are considered vulnerable due to rarity (21 to 100 occurrences) or occur in a restricted range. At the global (range-wide) level, this species has been assigned a rank of "G4", meaning that it is demonstrably secure, although quite rare in parts of its range.

The genetic purity of this population was determined by electrophoresis in 1982. Habitat quality for this species on O'Keefe Creek is considered "moderate" on the upper reach, which includes Sites 3 and 4 (MNHP 1996).

No additional rare or sensitive fish species are known or suspected to occur in O'Keefe Creek.

Impacts.

Sites 2 and 6. These sites contain no streams, wetlands, or other aquatic resources. Consequently, no impacts to these resources, including rare and sensitive fish, are anticipated from construction of the weigh station on either of these sites.

Sites 3 and 4. As stated in the Impacts section under Terrestrial Resources, it is assumed for purposes of analysis that facilities constructed on these sites would be oriented such that direct impacts to O'Keefe Creek and its immediate riparian/wetland fringe would be avoided

(this includes the large pond and wetland fringe on Site 3). Under this assumption, no direct impacts to O'Keefe Creek or its immediate fringe are expected to result from construction at either site. If it is determined later in the design process that O'Keefe Creek would be affected on either Site 3 or 4, a supplement to this BRR should be completed that addresses the nature and magnitude of the impact(s) and any proposed mitigation measures.

Direct impacts may occur at the wet meadow portion of Wetland 4-1 on the Klepper Property and at the excavated wetland "ditches" across the highway from the Klepper property, depending on the exact proposed location and design of the weigh station and turn lanes at this site. These impacts would result in a decrease in functions and values to Category III (moderate overall value) and IV (low overall value) wetlands at this site. Until site-specific designs are proposed, however, wetland impacts cannot be quantified at this site.

Water quality at O'Keefe Creek and adjacent wetlands on sites 3 and 4 would likely be indirectly affected over the short and long term by the influx of diesel fuel and other pollutants from paved surfaces during storm events, which could temporarily affect stream productivity. Additionally, grading and other construction activities would result in temporary increases in turbidity and suspended sediment.

Increases in turbidity and suspended sediment in O'Keefe Creek at either site could result in reductions of stream productivity, reduction of feeding opportunities for sight-feeding species, avoidance by fish of important habitat, and sedimentation of spawning habitat or eggs. Deposited sediments reduce habitat volume by filling pools and intergravel spaces which are critical to young fish. Fine sediments in stream gravels affect developing embryos by inhibiting dissipation of metabolic wastes in intergravel spaces.

These impacts would be reduced by implementing best management practices for pollutant/sediment/erosion control during and following construction and through compliance with any conditions stipulated in applicable water quality permits.

Mitigation. No direct wetland impacts are anticipated at sites 2, 3, or 6, and wetland impacts at Site 4 cannot be quantified in the absence of a site-specific design. Consequently, no compensatory mitigation is recommended at this time. Such mitigation may be required, however, should a site-specific design be proposed at Site 4 (or Site 3) that would result in direct wetland impacts.

The following general measures are recommended to minimize disturbance of wetlands and other waters of the United States during construction of the proposed project:

All applicable water quality permit conditions should be complied with.

Appropriate measures should be taken to prevent the introduction/spread of noxious weeds into stream and wetland areas.

Hay bales, berms, or other accepted erosion/sedimentation control devices should be installed at the edges of wetlands and other waters of the U.S. prior to construction. All exposed soils should be permanently stabilized at the earliest practicable date.

Hazardous materials, including fuels and lubricating oils, should not be stored within 100 feet of wetlands or streams. Additionally, construction equipment should not be refueled within 100 feet of such areas.

Threatened and Endangered Species

Threatened and endangered species include those species listed or proposed for listing by the USFWS as threatened or endangered. Under Section 7 of the Endangered Species Act, as amended, activities conducted, sponsored, or funded by federal agencies must be reviewed for their effects on species federally listed or proposed for listing as threatened or endangered. Threatened or endangered wildlife species which may occur in the project area are the bald eagle (*Haliaeetus leucocephalus*:threatened), peregrine falcon (*Falco peregrinus*:endangered), grizzly bear (*Ursus arctos*:threatened), and gray wolf (*Canis lupus*:endangered).

Bald Eagle

Analysis. No bald eagle nest sites are known to occur within several miles of any of the alternative sites (MNHP 1996, USFWS 1994). Similarly, no potential nesting habitat would be affected by construction on any of the four sites. Consequently, no impacts to nesting eagles are anticipated from the proposed project.

Eagles most likely occur in the project area as spring and fall migrants at streams and open water wetlands, where fish and waterfowl may provide a potential food source. Consequently, construction activities on sites 3, 4, and 6 during these periods may temporarily disturb or displace non-breeding eagles where the sites are visible from potential foraging habitat (e.g., O'Keefe Creek and the Jocko River). However, because the areas and duration of disturbance would be relatively confined, and undisturbed similar habitat for displaced birds is abundant in the surrounding area, these impacts are considered extremely minor.

Determination of Effects. Based on the above information, it is determined that implementation of the proposed action on any of the four alternative sites would not affect the bald eagle.

Peregrine Falcon

Analysis. Peregrine falcons may occur in the project area as spring and fall migrants. No known eyries or hack (reintroduction) sites occur within several miles of any of the alternative sites (USFWS 1994, MNHP 1995), and the proposed project would not affect any potential nesting habitat such as rock outcrops or cliff ledges at any of the sites. For these reasons, the proposed project is not expected to affect nesting peregrines.

Potential habitat for migrating falcons in the area primarily occurs at large wetlands, where waterfowl provide a potential food source. Although no large wetlands would be affected by the project at any of the sites, it is conceivable that construction during spring and fall may temporarily disturb peregrines foraging in the general area; particularly near the pond at Site 3. It is anticipated, however, that few, if any, peregrines would be displaced during construction. Additionally, similar habitat is abundant in the immediate vicinity and would provide ample habitat for displaced birds. Therefore, impacts to migrating peregrines resulting from construction of the project are considered to be extremely minor.

Determination of Effects. Based on the above information, it is determined that implementation of the proposed action on any of the four sites would not affect the peregrine falcon.

Gray Wolf

Analysis. Gray wolf populations in Montana have been increasing in recent years. In northwestern Montana, wolves have reproduced in Glacier National Park, near Marion, and in the Ninemile area near the southwestern portion of the Flathead Indian Reservation. Additionally, wolves were reintroduced to Yellowstone Park and central Idaho in 1994. According to the USFWS, the U.S. Highway 93 corridor occurs in a wolf recovery area, which includes most of northwestern Montana (Fontaine pers. comm.).

Wolves have been observed sporadically in the Evaro area in recent years (Fontaine, pers. comm.). In 1990, a female wolf moved from Glacier National Park, down the Swan Valley, through the Evaro Hill area and into the Ninemile area, where she established a territory. Two other wolves are known to have moved through the Evaro area between habitat in the Mission-Swan area and Ninemile-Bitterroot area. There also are credible reports of wolf sightings near Evaro, Arlee, Dixon, and Ninepipe Reservoir (Becker pers. comm.).

Only lone wolves moving over large areas have been sighted in the project area. No evidence indicates that the Highway 93 corridor occurs within the home range of any wolf packs. Given the general lack of habitat and high levels of existing human disturbance on and immediately adjacent to Sites 2, 3, and 6, wolf use is generally not anticipated at these sites. Although wolves occasionally travel through the Evaro area, high levels of human activity generally discourage wolf use and prevent wolves from expanding their home ranges to habitat adjacent to U.S.Highway 93.

Site 4, a pasture immediately adjacent to commercial (bar/restaurant), residential, and highway development, occurs immediately south of the Evaro townsite. Due to the high existing degree of human disturbance, only very infrequent transitory wolf use, if any, is expected near this site. The primary area and focus of wolf and grizzly bear movement in the "Evaro area" occurs where development is limited; primarily north of Site 4 and Evaro to the Schley Homesites and south to the mouth of the O'Keefe Creek canyon (Becker pers. comm.). It is in the largely undeveloped area north of Evaro that MDT is proposing to construct a wildlife overpass in conjunction with the Evaro-Polson highway improvement project to facilitate the movement of wolves, grizzlies, and other wildlife across the highway (MME 1995; MMI 1996).

Based on the lack of wolf use in the immediate area, construction of the weigh station on any of the four sites is not expected to substantially affect wolf habitat or movement patterns or result in increased mortality due to wolf/vehicle collisions.

Determination of Effects. Based on the above information, it is determined that implementation of the proposed action on Sites 2,3, or 6 would not affect the gray wolf. Construction of the weigh station on Site 4 is not likely to adversely affect the gray wolf.

Grizzly Bear

Analysis. Although the highest grizzly bear densities in the Highway 93 corridor occur in the Mission Mountains and adjacent lands in the Mission Valley, grizzlies also are periodically present in the Evaro area.

Jonkel (1992) reported that radio-collared grizzlies were traced repeatedly through Evaro Pass. In 1981, a grizzly bear den was inadvertently destroyed in the Finley Logging Unit by road construction (Becker pers. comm.). Two sub-adult grizzlies were observed in the Evaro area

during July and August 1978. These bears were relocated to the South Fork of the Jocko River from the west slope of the Mission Mountains where their mother was shot (Servheen and Lee 1979). These young bears utilized habitat both east and west of U.S.Highway 93. The pipeline right-of-way, west of U.S.Highway 93, was heavily used for feeding by both grizzly and black bears during July, August, and September of 1978. Prolific production of serviceberry fruit along the pipeline right-of-way was a productive and attractive summer food source for bears.

The Evaro area is an important wildlife movement corridor between the Mission/Swan ranges and Ninemile-Squaw Peak/Bitterroot Mountains. High levels of human activity (i.e., primary highway, railroad, pipelines, and associated development) inhibit grizzly bear movement between adjacent areas of suitable habitat, causing habitat fragmentation. As bear populations and habitat decrease and become more isolated, grizzlies become more vulnerable to man-induced mortality.

The Confederated Salish and Kootenai Tribes have recognized the importance of the Evaro area for grizzly bears. As part of their grizzly bear management plan, the Tribes have designated the Evaro area as Situation II grizzly bear habitat. Situation II habitat lacks distinct population centers and highly suitable habitat does not generally occur, but the grizzly bear is an important management consideration. The Tribes consider the Evaro area as important habitat where efforts will be made to maintain or improve habitat and minimize human-induced conflict or bear mortality.

Given the general lack of habitat and high levels of existing human disturbance on and immediately adjacent to Sites 2, 3, and 6, grizzly use is generally not anticipated at these sites.

Site 4, a pasture immediately adjacent to commercial (bar/restaurant), residential, and highway development, occurs immediately south of the Evaro townsite. However, due to the high existing degree of human disturbance, only very infrequent transitory grizzly use, if any, is expected near this site. The primary area and focus of grizzly bear movement in the "Evaro area" occurs where development is limited; primarily north of Site 4 and Evaro to the Schley Homesites and south to the mouth of the O'Keefe Creek canyon (Becker pers. comm.). It is in the largely undeveloped area north of Evaro that MDT is proposing to construct a wildlife overpass in conjunction with the Evaro-Polson highway improvement project to facilitate the movement of grizzlies and other wildlife across the highway (MME 1995;MMI 1996).

Based on the lack of bear use in the immediate area, construction of the weigh station on any of the four sites is not expected to substantially affect grizzly habitat or movement patterns or result in increased mortality due to bear/vehicle collisions.

Determination of Effects. Based on the above information, it is determined that implementation of the proposed action on Sites 2, 3, or 6 would not affect the grizzly bear. Construction of the weigh station on Site 4 is not likely to adversely affect the grizzly bear.

Conclusions: Threatened and Endangered Species. It is the determination of this report that implementation of the proposed action on any of the four alternative sites would not affect the bald eagle or peregrine falcon. Implementation of the proposed action on Sites 2,3, or 6 would not affect the gray wolf or grizzly bear. Construction of the weigh station on Site 4 is not likely to adversely affect the gray wolf or grizzly bear.

Cumulative Effects

Improvement and construction of highways in northwest Montana, including the proposed U.S. Highway 93 Evaro-Polson project, affect wildlife through animal/vehicle collisions, direct habitat loss, and displacement from habitat near highways. Streams, fish, and wetlands are also affected by these projects via direct (disturbance and fill placement) and indirect (water quality) impacts.

Regardless of the alternative site selected, the proposed project would act cumulatively with these projects to affect biological resources, although the magnitude of impacts would vary with the alternatives. Given the small estimated disturbance area (5 acres), relatively low wildlife use, and "disturbed" location of each of the alternative sites, and that O'Keefe Creek would not be directly affected at any of the sites, cumulative impacts to biological resources resulting from the weigh station project are expected to be minor.

Impact Summary

A summary of impacts to biological resources for each alternative site is provided in Table 2. While no substantial impacts would result from construction at any of the sites, potential impacts to biological resources do vary between the sites.

As stated periodically in this report, it was assumed for purposes of analysis that facilities constructed on Site 3 would be oriented such that direct impacts to O'Keefe Creek and any associated wetlands would be avoided (no streams or wetlands occur on Sites 2 or 6). It was also assumed that direct impacts to O'Keefe Creek and its immediate wetland fringe would be avoided at Site 4, although impacts to other wetlands at the site could not be determined in the absence of a site-specific design. Indirect impacts to streams and wetlands may occur, however, at sites 3 and 4.

Westslope cutthroat trout, listed as a species of special concern by the MNHP, occurs in O'Keefe Creek, which traverses sites 3 and 4. This species may be indirectly affected by water quality impacts resulting from construction of the weigh station on these sites.

Construction on Sites 2, 3, or 6 would not affect threatened or endangered species. Construction on Site 4 may result in extremely minor impacts to potential grizzly bear and gray wolf movement, but is not likely to adversely affect either species.

Table 2 - Comparison of Alternative Sites
U.S. Highway 93 MCS Weigh Station Project

Site Number	Existing Use	Streams or Wetlands Present	Impacts to Streams or Wetlands	Impacts to Fish	Impacts to Wildlife	Impacts to Threatened or Endangered Species	Impacts to Sensitive Species
1 - Muralt's Truckstop	Vacant lot and paved parking area	None	None	None	Extremely minor displacement and habitat loss	No affect	None
2 - O'Keefe Property	Vacant cleared lot	None	None	None	Extremely minor displacement and habitat loss	No affect	None
3 - Otoupalak Property	Residential and pasture	O'Keefe Creek and possible associated fringe wetlands + large pond with fringe	Indirect water quality impacts: sediment and pollutants	Indirect habitat degradation from water quality impacts	Minor displacement and habitat loss	No affect	Indirect from water quality impacts: westslope cutthoat trout
4 - Klepper Property	Residential and pasture	O'Keefe Creek and associated wetlands; large wet meadow complex; wet ditches	Possibledirect wetland impacts, indirect water quality impacts: sediment and pollutants	Indirect habitat degradation from water quality impacts	Minor displacement and habitat loss	Not likely to adversely affect grizzly bear and gray wolf	Indirect from water quality impacts: westslope cutthroat trout
5 - Arlee Site	Highway maintenance storage site and gravel pit	Agency Creek, unnamed drainage, and wetland/waters of U.S. in gravel pit	Direct and indirect water quality impacts: sediment and pollutants	No fisheries concerns (DoSantos pers. comm.)	Extremely minor displacement and habitat loss	No affect	None
6 - Ravalli Site	Hayland/pasture	None	None	None	Minor displacement and habitat loss	No affect	None

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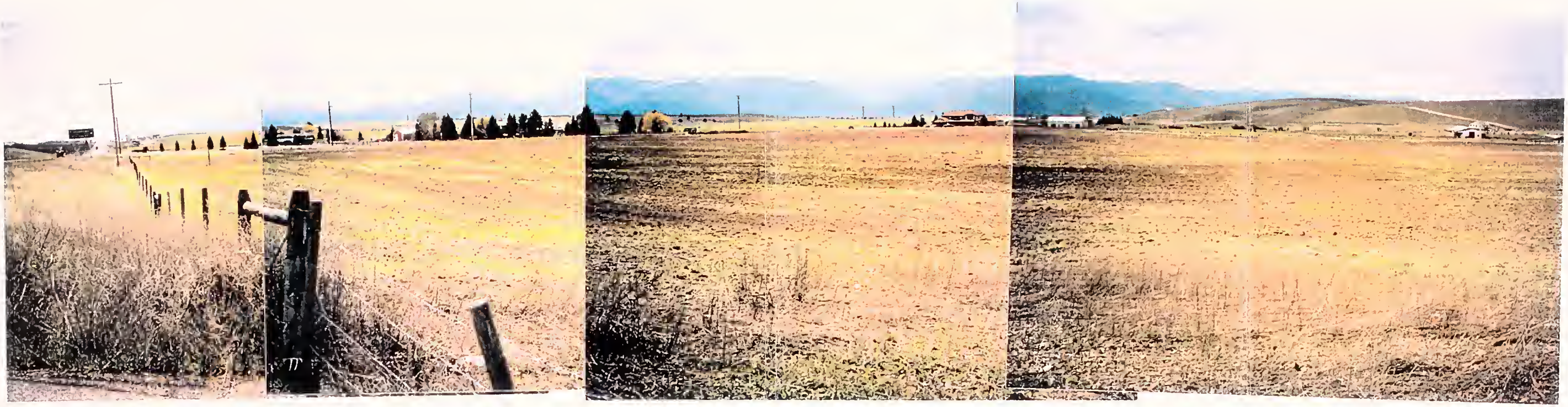
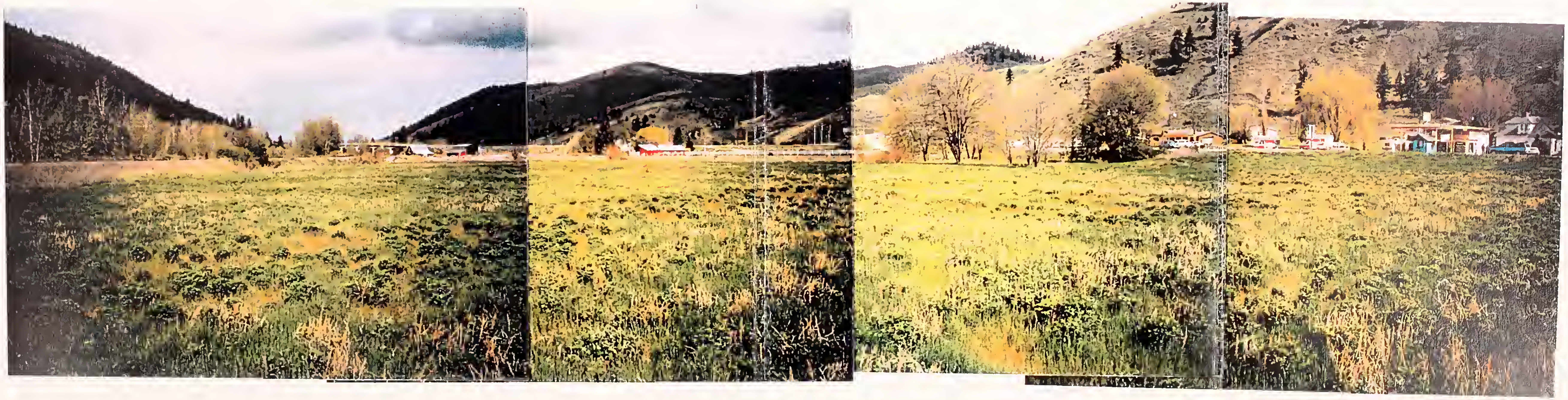
Appendix A

Site Photographs

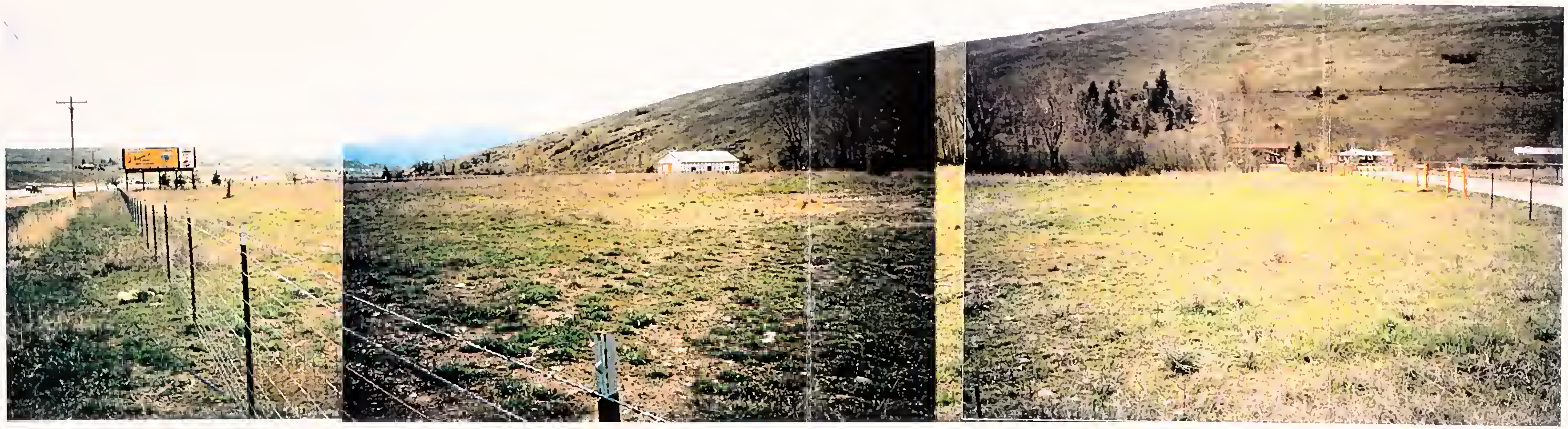


Site 2 - O'Keefe Property
(facing southwest)

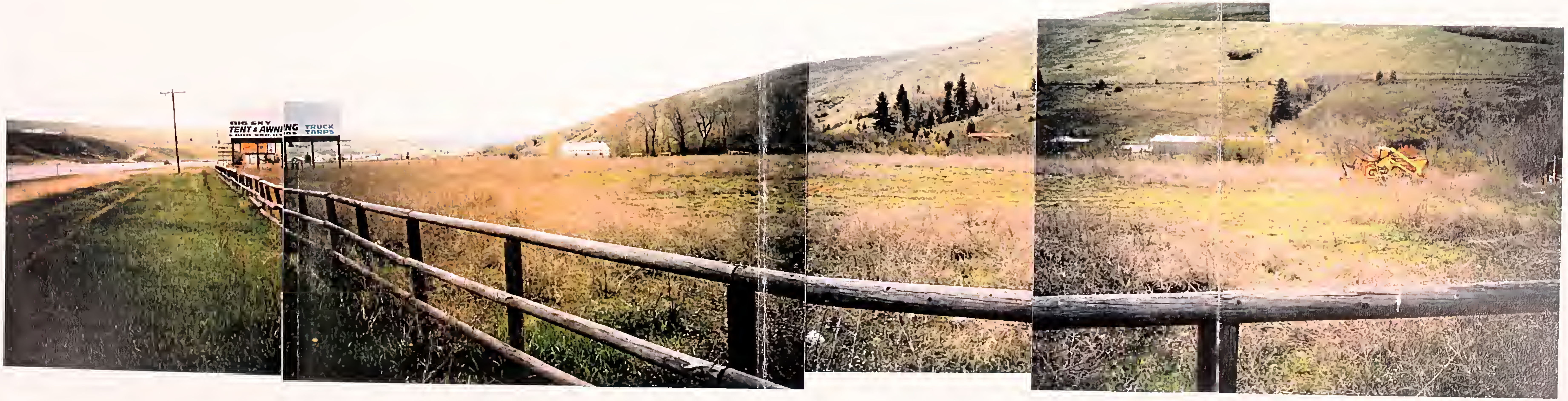


Site 6 - Ravalli
(facing northwest)

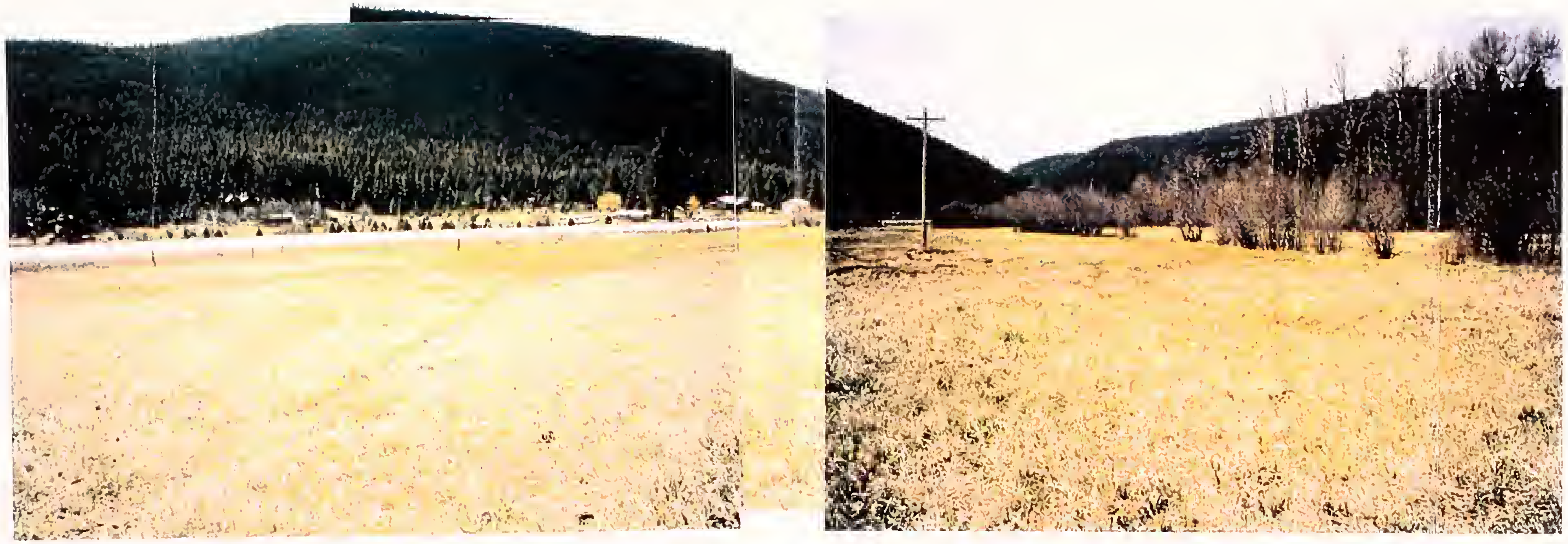
PHOTO PLATE 2



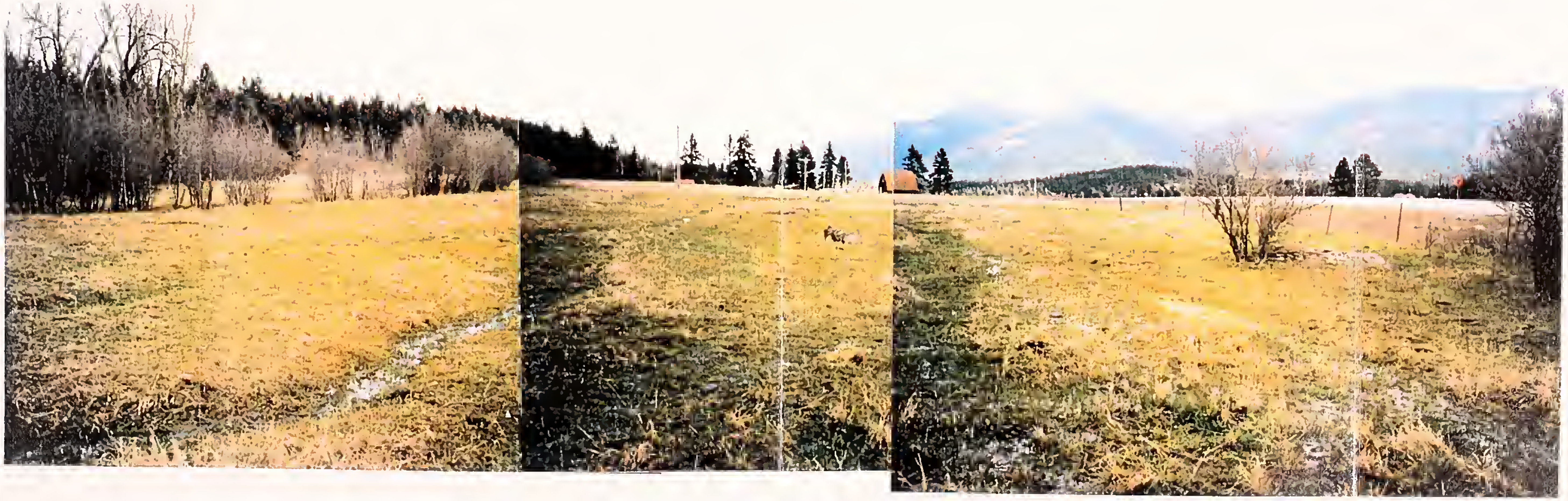
Site 3 - South Half of Otoupalak Property
(facing southwest)



Site 3 - North Half of Otoupalak Property
(facing southwest)



Site 4 - Klepper Property
(facing southeast)



Site 4 - Klepper Property
(facing north)

Appendix B

COE and MDT Wetland Data Forms

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: MCS Weigh Station
Applicant/Owner: MDT/Klepper Property
Investigator: MME

Date: 5/31/96
County: Missoula
State: MT

Do Normal Circumstances exist on the site? [✓ Yes] No
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID: 4-1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Alnus sinuata	S	FACW	9. Equisetum arvense	H	FAC
2. Crataegus douglasii	S	FAC	10. Hippuris vulgaris	H	OBL
3. Bromus inermis	H	NI	11. Juncus hallii	H	FAC
4. Alopecurus geniculatus	H	FACW+	12. Poa pratensis	H	FACU+
5. Carex nebrascensis	H	OBL	13. Taraxacum officinale	H	FACU
6. Carex sp.	H	FACW-OBL	14. Ranunculus sp.	H	FAC-OBL
7. Potentilla gracilis	H	FAC	15. Allium sp.	H	FAC+-OBL
8. Dodecatheon pulchellum	H	FACW	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). ≥80%

Remarks: Site is O'Keefe Creek with sedge/alder/hawthorn fringe + adjacent flooded grazed wet meadow. Wet meadow is upland/wetland mosaic.

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☒ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: 3 (in.)
Depth to Free Water in Pit: 0 (in.)
Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☒ Inundated
- ☒ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☒ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Aerial photos from prior years show flooding and drainage patterns

4-1

SOILS

Map Unit Name (Series and Phase): Argixerolls-Haploxerolls Complex 0-4% slopes

Drainage Class: WD

Taxonomy (Subgroup): —

Field Observations Confirm Mapped Type? Yes [✓ No]

Not well drained

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
10	A/B	10YR 2/1	—	—	Silty clay

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☒ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Several pits excavated, Is included on local hydric soils list as containing hydric inclusions.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)
Wetland Hydrology Present? [✓ Yes] No
Hydric Soils Present? [✓ Yes] No

(Circle)
Is this Sampling Point Within a Wetland? [✓ Yes] No

Remarks: See comments under vegetation.

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Mcs Weigh Station
Applicant/Owner: MDT
Investigator: MMF

Date: 5/31/96
County: Missoula
State: MT

Do Normal Circumstances exist on the site? [✓ Yes] No
Is the site significantly disturbed (Atypical Situation)? Yes [✓ No]
Is the area a potential Problem Area? Yes [✓ No]
(If needed, explain on reverse.)

Community ID:
Transect ID:
Plot ID: 4-2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL	9.		
2. Carex sp.	H	FACW-OBL	10.		
3. Juncus sp.	H	FAC-OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Excavated ditch

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☒ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0-3 (in.)
Depth to Free Water in Pit: 0 (in.)
Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☒ Inundated
- ☒ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☒ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

4-2

SOILS

Map Unit Name
(Series and Phase): Argixerolls-Haploxerolls complex 0-4% Slopes

Drainage Class: WD

Taxonomy (Subgroup): —

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
No Pit					

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☒ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil type listed as containing hydric inclusions on local hydric soils list. Border abrupt. Obligate sp. present.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? [✓ Yes] No (Circle)
Wetland Hydrology Present? [✓ Yes] No
Hydric Soils Present? [✓ Yes] No

Is this Sampling Point Within a Wetland? (Circle) [✓ Yes] No

Remarks: Excavated ditch between U.S. Highway 93 + railroad.

Approved by HQUSACE 3/92

Montana Wetland Field Evaluation Form *(revised 7/1/96)* Otoupalak

1. Project Name: MCS Weigh Station	2. Project # and Control #:

3. Evaluation Date: 8/96	4. Evaluator(s): MME	5. Wetland/Site #(s): 3-1 (O'Keefe Creek)

6. Wetland Location(s): O'Keefe Creek + fringe on Otoupalak property; U.S. Highway 93 MP 3.43

7. Evaluation is to assess functions and values of: X Wetlands that may be affected by an MDT project ____ Mitigation wetlands: pre-construction ____ Mitigation Wetlands: post-construction ____ Other:	8. Estimated total wetland size (acres): >20 (extends offsite) 9. Estimated acreage of assessment area (AA): (see detailed instructions on how to determine AA) 2.4 acres

10. Classification of AA (HGM according to Brinson; system, subsystem,class, water regime, and special modifier according to Cowardin [1979])

HGM Class (Brinson)	System (Cowardin)	Subsystem (Cowardin)	Class (Cowardin)	Water Regime (Cowardin)	Modifier (Cowardin)	% of AA
Riverine +	Riverine	Lower Peren.	Open water	Perm. Flooded	–	50
Depression	Palustrine	–	Scrub/Shrub	Seas. Flooded	–	50

11. Circle estimated relative abundance (see definitions) of similarly classified sites within the same Major Montana Watershed Basin:
Rare Common [✓ Abundant]

12. Circle general condition of AA (see definitions): Undisturbed [✓ Encroached Upon] Directly Disturbed

13. Habitat Diversity

A). # of persistent vegetated classes (circle points):
≥3 = 5 points
2 = 3 points
[✓ ≤1 = 1 point]

B). Open water (see definition) in the AA is (circle points):
[✓ present = 2 points]
absent = 1 point

Comments:

Score is (A) x (B) = 2

Score	Rating	Functional Points
10	Excep	NA
5-6	High	NA
2-3	[✓ Mod]	NA
1	Low	NA

14. Brief descriptive summary of AA and surrounding land use and habitat:
O'Keefe Creek w/ shrub + forested fringe; adjacent to: homes, cleared pasture, + U.S. Highway 93.

15. Functions and Values Assessment

15.a) Habitat for Federally Listed, Proposed, or Candidate Threatened or Endangered Plants or Animals
AA is documented or suspected (circle D or S) to receive:
D S Regular use or is designated critical habitat (list species):
D [✓ S] Occasional (infrequent, sporadic) use (list species): Bald eagle
D S Incidental (chance, inconsequential) use (list species):
D S No use

Source(s) for documented use (e.g., observation, records, etc.):
Comments:

Highest Level Use:	Rating	Functional Points
doc/reg	High	1
doc/occ	High	.9
sus/reg	Mod	.8
sus/occ	[✓ Mod]	[✓ .7]
doc/incid	Low	.5
sus/incid	Low	.3
none	None	0

15.b) Habitat for Plants or Animals Rated S1, S2, or S3 by the Montana Natural Heritage Program (Not including species listed in 15.a) above.)
AA is documented or suspected (circle D or S) to receive:
[✓ D] S Regular use (list species): West-slope cutthroat trout
D S Occasional (infrequent, sporadic) use (list species):
D S Incidental (chance, inconsequential) use (list species):
D S No use

Source(s) for documented use (e.g., observation, records, etc.): MDFWP, MNHP
Comments:

Highest Level Use:	Rating	Functional Points
doc/reg	[✓ High]	[✓ 1]
doc/occ	High	.8
sus/reg	Mod	.7
sus/occ	Mod	.6
doc/incid	Low	.2
sus/incid	Low	.1
none	None	0

15.c) General Wildlife Habitat
AA is known or suspected (circle K or S) to receive (fill in blank) substantial (s), moderate (m), or little to no (l) use (see definitions for these terms) by the listed wildlife groups (see definitions for aquatic/semi-aquatic and non-aquatic wildlife)

K [✓ S] L Aquatic/semi-aquatic birds (list examples): Waders
K [✓ S] M Non-aquatic birds (list examples): Neotrops
K [✓ S] M Aquatic/semi-aquatic mammals (list examples): Beaver, muskrat
K [✓ S] M Non-aquatic mammals (list examples): Deer, raccoon, porcupine, coyote
K [✓ S] L Aquatic/semi-aquatic reptiles (list examples): garter snake
K [✓ S] M Non-aquatic reptiles (list examples): garter snake
K [✓ S] M Amphibians (list examples): red-legged frog
K [✓ S] M Invertebrates (list examples):

i. Assessed wildlife use (circle points):
≥3 s's or ≥5 m's + s's = [✓ 7 points]
1-2 s's or 2-4 m's = 3 points
No s's and < 2 m's = 1 point

ii. Habitat diversity from #13 (circle points)
High to exceptional rating = 3 points
Moderate rating = [✓ 2 points]
Low rating = 1 point

Comments:

Score	Rating	Functional Points
21	High	1
14	[✓ High]	[✓ .9]
7	High	.8
9	High	.7
6	Mod	.5
3	Mod	.4
2	Low	.3
1	Low	.1

Score is (i) x (ii) = 14

15.d) General Fish Habitat (If AA does not contain or is not surficially connected to a fish-bearing stream or standing water body [e.g., pond or lake], circle NA here and proceed to next function)

i. AA is known or suspected (circle K or S) to support listed groups for portion of their life cycle (circle points)
[✓ K] S Native fish = [✓ 5 points]
K S Introduced game fish = 3 points
K S Introduced non-game fish = 2 points
K S No fish = 1 point

ii. Surface water in AA is (circle points):
Permanent/perennial = [✓ 3 points]
Seasonal/intermittent = 2 points
Temporary/ephemeral = 1 point

Comments:

Score	Rating	Functional Points
15	[✓ High]	[✓ 1]
10	High	.9
9	High	.8
6	Mod	.7
5	Mod	.6
3,4	Mod	.5
2	Low	.2
1	Low	.1

Score is (i) x (ii) = 15

15.e) Flood Attenuation and Storage (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in the AA are not flooded from in-channel or overbank flow, circle NA here and proceed to next function. See 15.l) Dynamic Surface Water Storage for wetlands that flood, but not from in-channel or overbank flow.)

i. Estimated acreage of jurisdictional wetland in the AA that is subject to periodic flooding (circle points):
Flooded wetlands ≥ 10 acres = 7 points
10 acres > Flooded wetlands > 2 acres = [✓ 5 points]
Flooded wetlands ≤ 2 acres = 1 point

ii. Estimated % of flooded wetland area classified as forested(fo), scrub-shrub (ss), or both (circle points)
> 75% fo/ss = [✓ 3 points]
25-75% fo/ss = 2 points
< 25% fo/ss = 1 point

iii. AA contains no outlet or restricted outlet = 1 point
AA contains unrestricted outlet = [✓ 0 points]

iv. Are residences, businesses, or other features which may be damaged by floods located within 0.5 miles downstream of AA? yes If so, list here: Residences

Comments:

Score is [(i) x (ii)] + (iii) = 15

Score	Rating	Functional Points
22	High	1
16, 21	High	.9
14,15	[✓ High]	[✓ .8]
11	High	.7
8,10	Mod	.6
6,7	Mod	.5
5,4	Mod	.4
3	Low	.3
2	Low	.2
1	Low	.1

15.f) Sediment/Nutrient/Toxicant Retention and Removal
Circle true (T) or false (F) for each of the following statements:

i. [✓ T] F AA receives direct discharge of managed water (municipal or road stormwater drainage, agricultural drainsge, industrial/municipal wastewater) or accumulation of sediment/excess nutrients evident (deposits on vegetation, algal mats or other signs of eutrophication present) or immediate upstream land use has potential to deliver significant sediment/nutrient loads to AA.
ii. [✓ T] F Evidence of flooding or ponding occurs in AA.
iii. T [✓ F] AA contains restricted outlet or no outlet such that flow is slowed or detained.
iv. [✓ T] F Percent cover or emergent and/or dense woody vegetation in the AA exceeds 50%.

(i) is true and at least two of (ii),(iii), or (iv) are true = [✓ High rating]
Rating is neither High or Low = Moderate rating
(i) is false and at least two of (ii), (iii), or (iv) are false = Low rating

Comments:

Score	Rating	Functional Points
NA	[✓ High]	[✓ 1]
NA	Mod	.5
NA	Low	.1

15.g) Sediment/Shoreline Stabilization (applies only if AA occurs on or within the banks of a river, stream, or other natural or manmade drainage, or on the shoreline of a standing water body which has a maximum depth exceeding 6.6 feet at low water (e.g., subject to wave action). If does not apply, circle NA here and proceed to next function.

i. Estimated % cover of rooted vegetated component in AA (circle points):
> 30% rooted vegetation = [✓ 3 points]
10-30% rooted vegetation = 2 points
< 10% rooted vegetation = 1 point

ii. Water body adjacent to rooted vegetation is (circle points):
Permanent/perennial = [✓ 5 points]
Seasonal/intermittent = 3 points
Temporary/ephemeral = 2 points

Comments:

Score is (i) x (ii) = 15

Score	Rating	Functional Points
15	[✓ High]	[✓ 1]
9	High	.9
10	High	.8
6	Mod	.7
4	Mod	.5
5	Mod	.4
3	Low	.2
2	Low	.1

15.h) Production Export/Food Chain Support

i. Acreage of vegetated component in AA (circle points)
> 5 acres = 10 points
1-5 acres = [✓ 5 points]
<1 acre = 1 point

ii. Habitat diversity rating (from #13: circle points)
High - Exceptional = 3 points
Moderate = [✓ 2 points]
Low = 1 point

iii. Outlet presence (circle points)
AA contains an outlet = [✓ 3 points]
AA contains no outlet = 1 point

iv. Surface water in AA is (circle points):
Permanent/perennial = [✓ 3 points]
Seasonal/intermittent = 2 points
Temporary/ephemeral or absent = 1 point

Comments:

10 9
Score is [(i) x (ii)] + [(iii) x (iv)] = 19

Score	Rating	Functional Points
39	High	1
21-36	High	.9
16-19	[✓ High]	[✓ .8]
10-14	Mod	.7
8-9	Mod	.6
7	Mod	.5
5,6	Low	.4
4	Low	.3
3	Low	.2
2	Low	.1

15.l) Groundwater Discharge/Recharge

i. Check the discharge indicators listed below that apply to the AA
____Springs are known or observed in the AA.
____Vegetation is growing during dormant season or drought.
____Wetland occurs at the toe of a natural slope.
_X_Other: perennial stream
____Seeps are present at the wetland edge.
____AA permanently flooded during drought periods.
____Wetland contains an outlet, but no inlet.

ii. Check the recharge indicators listed below that apply to the AA
____Permeable substrate present without underlying impeding layer.
____Wetland contains inlet, but no outlet.
____Other:

AA is known discharge or recharge area or one or more indicators of discharge or recharge present = [✓ High rating]
No discharge or recharge indicators present = Low rating
Available information pertaining to AA is inadequate to judge discharge/recharge potential = Unknown

Comments: Likely receives groundwater discharge

Score	Rating	Functional Points
NA	[✓ High]	[✓ 1]
NA	Low	.1
NA	Unkn	NA

15.j) Uniqueness

i. Estimated relative abundance of similarly classified sites within the Major Watershed Basin (#11: circle points):
Rare = 3 points
Common = 2 points
Abundant = [✓ 1 point]

ii. Replacement potential/habitat diversity (#12: circle points):
AA is/contains bog, fen, warm springs or mature (>80 years) forested wetland = 10 points
AA does not contain above but habitat diversity is high - exceptional = 3 points
AA does not contain above and habitat diversity is low - moderate = [✓ 1 point]

iii. Condition of AA (from #12: circle points):
Undisturbed = 3 points
Encroached Upon = [✓ 2 points]
Directly Disturbed = 1 point

Comments:

1 2
Score is [(i) x (ii)] + (iii) = 3

Score	Rating	Functional Points
33	High	1
31,32	High	.9
22,23	High	.8
12-21	High	.7
10,11	Mod	.6
8,9	Mod	.5
5,6,7	Mod	.4
4	Low	.3
2,3	[✓ Low]	[✓ .2]
1	Low	.1

15.k) Recreation/Education Potential

i. Is the AA a known rec/ed site (circle)? Y [✓ N] (If yes, rate as High and go to ii. If no, go to iii.)

ii. Check the categories listed below that apply to the AA:
___education/scientific study
_X_consumptive recreation fishing
___non-consumptive recreation
___others:

iii. Based on the location, diversity, size, and other attributes of the site, is there strong potential for recreational/educational use (circle)? [✓ Y] N (If yes, go to ii, then proceed to iv. If no, rate as Low [.1].)

iv. Condition of AA (from #12: circle points):
Undisturbed = 3 points
Encroached Upon = [✓ 2 points]
Directly Disturbed = 1 point

v. Ownership of AA (circle points):
Public = 2 points
Private = [✓ 1 point]

Comments:

Score is (iv) x (v) = 2

Score	Rating	Functional Points
6	High	1
3	Mod	.7
4	Mod	.5
2	[✓ Low]	[✓ .2]
1	Low	.1

15.L) Dynamic Surface Water Storage (applies to wetlands that do not flood from overbank or in-channel flow, but flood via ppt., upland surface flow, or groundwater flow. If no jurisdictional wetlands in the AA are subject to flooding, circle NA here and proceed with the evaluation.)

i. Estimated acreage of jurisdictional wetland in the AA that is subject to periodic flooding (circle points):

Flooded wetlands ≥5acres = 3 points
5 acres > Flooded wetlands > 1 acre = 2 points
Flooded wetlands < 1 acre = .5 point

ii. Estimated flood frequency (circle points)

Wetland floods ≥ 5/10 years = 2 points
Wetland floods < 5/10 years = 1 point

Score	Rating	Functional Points
6	High	1
4	High	.8
2,3	Mod	.5
1	Low	.3
.5	Low	.1

Comments:

Score is (i) x (ii) = NA

Function & Value Summary and Overall Rating

Function & Value Parameters		Rating	Actual functional points	Possible Functional Points	Functional Units (Actual Points x Estimated AA Acreage)
A.	Listed/Proposed/Candidate T&E Species Habitat	Mod	.7	1	
B.	MNHP Species Habitat	High	1	1	
C.	General Wildlife Habitat	High	.9	1	
D.	General Fish/Aquatic Habitat	High	1	1	
E.	Flood Attenuation and Storage	High	.8	1	
F.	Sediment/Nutrient/Toxicant Removal	High	1	1	
G.	Sediment/Shoreline Stabilization	High	1	1	
H.	Production Export/Food Chain Support	High	.8	1	
I.	Groundwater Discharge/Recharge	High	1	1	
J.	Uniqueness	Low	.2	1	
K.	Recreation/Education Potential	Low	.2	1	
L.	Dynamic Surface Water Storage	NA	NA	NA	
Totals			8.6	11	

Overall AA Rating (Circle appropriate category based on the criteria outlined below):

I [✓ II] III IV

78%

Category I Wetland - Must satisfy one of the following criteria:
- o Score of .9 or 1 functional point for Listed/Proposed/Candidate Threatened or Endangered Species; or
- o Score of .9 or 1 functional points for Uniqueness or "High" rating for Uniqueness and Condition (#12) is "Undisturbed"; or
- o Score of 1 functional point for Flood Attenuation and Storage and answer to Question 14.E.3 is "yes"; or
- o Total actual functional points > 80% (round to nearest tenth) of total possible functional points.

Category II Wetland - Does not satisfy criteria for Category I and:
- o Score of 1 functional point for Species Rated S1, S2, or S3 by the Montana Natural Heritage Program; or
- o Score of 1 functional point for General Wildlife Habitat; or
- o "High" ratings for both General Wildlife Habitat and General Fish/Aquatic Habitat; or
- o "High" rating for Uniqueness or
- o Total actual functional points > 65% (round to nearest tenth) of total possible functional points.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

Category IV Wetland - Does not satisfy criteria for Category I, Category II, or Category III and:
- o "Low" rating for Uniqueness; and
- o "Low" rating for Production Export/Food Chain Support; and
- o Total actual functional points < 30% (round to nearest tenth) of total possible functional points.

Montana Wetland Field Evaluation Form *(revised 7/1/96)* Otoupalak

1. Project Name: MCS Weigh Station

2. Project # and Control #:

3. Evaluation Date: 8/96

4. Evaluator(s): MME

5. Wetland/Site #(s): 3-1 (Pond w/ fringe)

6. Wetland Location(s): Excavated pond w/ fringe on Otoupalak property; US Highway 93 MP 3.43

7. Evaluation is to assess functions and values of:
X Wetlands that may be affected by an MDT project
____ Mitigation wetlands: pre-construction
____ Mitigation Wetlands: post-construction
____ Other:

8. Estimated total wetland size (acres): >20 (extends offsite)

9. Estimated acreage of assessment area (AA): (see detailed instructions on how to determine AA) 4 acres

10. Classification of AA (HGM according to Brinson; system, subsystem,class, water regime, and special modifier according to Cowardin [1979])

HGM Class (Brinson)	System (Cowardin)	Subsystem (Cowardin)	Class (Cowardin)	Water Regime (Cowardin)	Modifier (Cowardin)	% of AA
Depressional	Palustrine	—	Forested	Saturated		30
			Scrub/shrub	Seas. Flooded		20
			Open water/ Aquatic bed	Perm. Flooded	excavated	50

11. Circle estimated relative abundance (see definitions) of similarly classified sites within the same Major Montana Watershed Basin:
Rare [✓ Common] Abundant

12. Circle general condition of AA (see definitions): Undisturbed [✓ Encroached Upon] Directly Disturbed

13. Habitat Diversity

A). # of persistent vegetated classes (circle points)
≥3 = 5 points
[✓ 2 = 3 points]
≤1 = 1 point

B). Open water (see definition) in the AA is (circle points):
[✓ present = 2 points]
absent = 1 point

Comments:

Score is (A) x (B) = 6

Score	Rating	Functional Points
10	Excep	NA
5-6	[✓ High]	[✓ NA]
2-3	Mod	NA
1	Low	NA

14. Brief descriptive summary of AA and surrounding land use and habitat:
Excavated pond surrounded by Scrub/shrub and forested wetland adjacent (connected) to O'Keefe Creek - several residential buildings in immediate vicinity.

15. Functions and Values Assessment

15.a) Habitat for Federally Listed, Proposed, or Candidate Threatened or Endangered Plants or Animals
AA is documented or suspected (circle D or S) to receive:
D S Regular use or is designated critical habitat (list species):
D [✓ S] Occasional (infrequent, sporadic) use (list species): Bald Eagle
D S Incidental (chance, inconsequential) use (list species):
D S No use

Source(s) for documented use (e.g., observation, records, etc.):
Comments:

Highest Level Use:	Rating	Functional Points
doc/reg	High	1
doc/occ	High	.9
sus/reg	Mod	.8
sus/occ	[✓ Mod]	[✓ .7]
doc/incid	Low	.5
sus/incid	Low	.3
none	None	0

15.b) Habitat for Plants or Animals Rated S1, S2, or S3 by the Montana Natural Heritage Program (Not including species listed in 15.a) above.)
AA is documented or suspected (circle D or S) to receive:
D [✓ S] Regular use (list species): Westslope Cutthroat trout
D S Occasional (infrequent, sporadic) use (list species):
D S Incidental (chance, inconsequential) use (list species):
D S No use

Source(s) for documented use (e.g., observation, records, etc.):
Comments: W.S. Cutthroat documented in O'Keefe Creek

Highest Level Use:	Rating	Functional Points
doc/reg	High	1
doc/occ	High	.8
sus/reg	[✓ Mod]	[✓ .7]
sus/occ	Mod	.6
doc/incid	Low	.2
sus/incid	Low	.1
none	None	0

5-1

15.c) General Wildlife Habitat
AA is known or suspected (circle K or S) to receive (fill in blank) substantial (s), moderate (m), or little to no (l) use (see definitions for these terms) by the listed wildlife groups (see definitions for aquatic/semi-aquatic and non-aquatic wildlife)

K [✓ S] S Aquatic/semi-aquatic birds (list examples): Waterfowl
K [✓ S] S Non-aquatic birds (list examples): Neotropical migrants
K [✓ S] M Aquatic/semi-aquatic mammals (list examples): beaver, muskrat
K [✓ S] M Non-aquatic mammals (list examples): Deer, raccoon, coyote
K [✓ S] L Aquatic/semi-aquatic reptiles (list examples):
K [✓ S] M Non-aquatic reptiles (list examples):
K [✓ S] M Amphibians (list examples): red-legged frog
K [✓ S] M Invertebrates (list examples):

i. Assessed wildlife use (circle points):			ii. Habitat diversity from #13 (circle points)	
≥3 s's or ≥5 m's + s's	=	[✓ 7 points]	High to exceptional rating =	[✓ 3 points]
1-2 s's or 2-4 m's	=	3 points	Moderate rating =	2 points
No s's and < 2 m's	=	1 point	Low rating =	1 point

Comments:

Score is (i) x (ii) = 21

Score	Rating	Functional Points
21	[✓ High]	[✓ 1]
14	High	.9
7	High	.8
9	High	.7
6	Mod	.5
3	Mod	.4
2	Low	.3
1	Low	.1

15.d) General Fish Habitat (If AA does not contain or is not surficially connected to a fish-bearing stream or standing water body [e.g., pond or lake], circle NA here and proceed to next function)

i. AA is known or suspected (circle K or S) to support listed groups for portion of their life cycle (circle points)				ii. Surface water in AA is (circle points):	
K S	Native fish	=	[✓ 5 points]	Permanent/perennial =	[✓ 3 points]
K S	Introduced game fish	=	3 points	Seasonal/intermittent =	2 points
K S	Introduced non-game fish	=	2 points	Temporary/ephemeral =	1 point
K S	No fish	=	1 point		

Comments:

Score is (i) x (ii) = 15

Score	Rating	Functional Points
15	[✓ High]	[✓ 1]
10	High	.9
9	High	.8
6	Mod	.7
5	Mod	.6
3,4	Mod	.5
2	Low	.2
1	Low	.1

15.e) Flood Attenuation and Storage (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in the AA are not flooded from in-channel or overbank flow, circle NA here and proceed to next function. See 15.l) Dynamic Surface Water Storage for wetlands that flood, but not from in-channel or overbank flow.)

i. Estimated acreage of jurisdictional wetland in the AA that is subject to periodic flooding (circle points):			ii. Estimated % of flooded wetland area classified as forested(fo), scrub-shrub (ss), or both (circle points)		
Flooded wetlands ≥ 10 acres	=	7 points	> 75% fo/ss	=	[✓ 3 points]
10 acres > Flooded wetlands > 2 acres	=	[✓ 5 points]	25-75% fo/ss	=	2 points
Flooded wetlands ≤ 2 acres	=	1 point	< 25% fo/ss	=	1 point

iii.		
AA contains no outlet or restricted outlet	=	[✓ 1 point]
AA contains unrestricted outlet	=	0 points

iv. Are residences, businesses, or other features which may be damaged by floods located within 0.5 miles downstream of AA? yes If so, list here: residences

Comments:

Score is [(i) x (ii)] + (iii) = 16

Score	Rating	Functional Points
22	High	1
16, 21	[✓ High]	[✓ .9]
14,15	High	.8
11	High	.7
8,10	Mod	.6
6,7	Mod	.5
5,4	Mod	.4
3	Low	.3
2	Low	.2
1	Low	.1

15.f) Sediment/Nutrient/Toxicant Retention and Removal
Circle true (T) of false (F) for each of the following statements:

i. [✓ T] F AA receives direct discharge of managed water (municipal or road stormwater drainage, agricultural drainsge, industrial/municipal wastewater) or accumulation of sediment/excess nutrients evident (deposits on vegetation, algal mats or other signs of eutrophication present) or immediate upstream land use has potential to deliver significant sediment/nutrient loads to AA.
ii. [✓ T] F Evidence of flooding or ponding occurs in AA.
iii. [✓ T] F AA contains restricted outlet or no outlet such that flow is slowed or detained.
iv. T [✓ F] Percent cover or emergent and/or dense woody vegetation in the AA exceeds 50%.

(i) is true and at least two of (ii),(iii), or (iv) are true	=	[✓ High rating]
Rating is neither High or Low	=	Moderate rating
(i) is false and at least two of (ii), (iii), or (iv) are false	=	Low rating

Comments:

Score	Rating	Functional Points
NA	[✓ High]	[✓ 1]
NA	Mod	.5
NA	Low	.1

3-1

15.g) Sediment/Shoreline Stabilization (applies only if AA occurs on or within the banks of a river, stream, or other natural or manmade drainage, or on the shoreline of a standing water body which has a maximum depth exceeding 6.6 feet at low water (e.g., subject to wave action). If does not apply, circle [✓ NA] here and proceed to next function.

i. Estimated % cover of rooted vegetated component in AA (circle points)
> 30% rooted vegetation = 3 points
10-30% rooted vegetation = 2 points
< 10% rooted vegetation = 1 point

ii. Water body adjacent to rooted vegetation is (circle points):
Permanent/perennial = 5 points
Seasonal/intermittent = 3 points
Temporary/ephemeral = 2 points

Comments:

Score is (i) x (ii) = ______

Score	Rating	Functional Points
15	High	1
9	High	.9
10	High	.8
6	Mod	.7
4	Mod	.5
5	Mod	.4
3	Low	.2
2	Low	.1

15.h) Production Export/Food Chain Support
i. Acreage of vegetated component in AA (circle points)
> 5 acres = 10 points
1-5 acres = [✓ 5 points]
<1 acre = 1 point

ii. Habitat diversity rating (from #13: circle points)
High - Exceptional = [✓ 3 points]
Moderate = ~~2 points~~
Low = 1 point

iii. Outlet presence (circle points)
AA contains an outlet = [✓ 3 points]
AA contains no outlet = ~~1 point~~

iv. Surface water in AA is (circle points):
Permanent/perennial = [✓ 3 points]
Seasonal/intermittent = ~~2 points~~
Temporary/ephemeral or absent = 1 point

Comments:

15 9
Score is [(i) x (ii)] + [(iii) x (iv)] = 24

Score	Rating	Functional Points
39	High	1
21-36	[✓ High]	[✓ .9]
16-19	High	.8
10-14	Mod	.7
8-9	Mod	.6
7	Mod	.5
5,6	Low	.4
4	Low	.3
3	Low	.2
2	Low	.1

15.i) Groundwater Discharge/Recharge
i. Check the discharge indicators listed below that apply to the AA
____Springs are known or observed in the AA.
____Vegetation is growing during dormant season or drought.
____Wetland occurs at the toe of a natural slope.
____Other:
____Seeps are present at the wetland edge.
____AA permanently flooded during drought periods.
____Wetland contains an outlet, but no inlet.

ii. Check the recharge indicators listed below that apply to the AA
____Permeable substrate present without underlying impeding layer.
____Wetland contains inlet, but no outlet.
____Other:

AA is known discharge or recharge area or one or more indicators of discharge or recharge present = High rating
No discharge or recharge indicators present = Low rating
Available information pertaining to AA is inadequate to judge discharge/recharge potential = [✓ Unknown]

Comments:

Score	Rating	Functional Points
NA	High	1
NA	Low	.1
NA	[✓ Unkn]	[✓ NA]

15.j) Uniqueness
i. Estimated relative abundance of similarly classified sites within the Major Watershed Basin (#11: circle points):
Rare = 3 points
Common = [✓ 2 points]
Abundant = ~~1 point~~

ii. Replacement potential/habitat diversity (#12: circle points):
AA is/contains bog, fen, warm springs or mature (>80 years) forested wetland = 10 points
AA does not contain above but habitat diversity is high - exceptional = [✓ 3 points]
AA does not contain above and habitat diversity is low - moderate = 1 point

iii. Condition of AA (from #12: circle points):
Undisturbed = ~~3 points~~
Encroached Upon = [✓ 2 points]
Directly Disturbed = ~~1 point~~

Comments:

6 2
Score is [(i) x (ii)] + (iii) = 8

Score	Rating	Functional Points
33	High	1
31,32	High	.9
22,23	High	.8
12-21	High	.7
10,11	Mod	.6
8,9	[✓ Mod]	[✓ .5]
5,6,7	Mod	.4
4	Low	.3
2,3	Low	.2
1	Low	.1

15.k) Recreation/Education Potential
i. Is the AA a known rec/ed site (circle)? Y [✓ N] (If yes, rate as High and go to ii. If no, go to iii.)
ii. Check the categories listed below that apply to the AA:
____education/scientific study
X consumptive recreation
X non-consumptive recreation
____others:
iii. Based on the location, diversity, size, and other attributes of the site, is there strong potential for recreational/educational use (circle)? Y N (If yes, go to ii, then proceed to iv. If no, rate as Low [.1].)

iv. Condition of AA (from #12: circle points):
Undisturbed = ~~3 points~~
Encroached Upon = [✓ 2 points]
Directly Disturbed = ~~1 point~~

v. Ownership of AA (circle points):
Public = 2 points
Private = [✓ 1 point]

Comments:

Score	Rating	Functional Points
6	High	1
3	Mod	.7
4	Mod	.5
2	[✓ Low]	[✓ .2]
1	Low	.1

Score is (iv) x (v) = 2

3-1

15.1) Dynamic Surface Water Storage (applies to wetlands that do not flood from overbank or in-channel flow, but flood via ppt., upland surface flow, or groundwater flow. If no jurisdictional wetlands in the AA are subject to flooding, circle [✓ NA] here and proceed with the evaluation.)

i. Estimated acreage of jurisdictional wetland in the AA that is subject to periodic flooding (circle points):		ii. Estimated flood frequency (circle points)
Flooded wetlands ≥5acres =	3 points	Wetland floods ≥ 5/10 years = 2 points
5 acres > Flooded wetlands > 1 acre =	2 points	Wetland floods < 5/10 years = 1 point
Flooded wetlands < 1 acre =	.5 point	

Comments:

Score is (i) x (ii) = _____

Score	Rating	Functional Points
6	High	1
4	High	.8
2,3	Mod	.5
1	Low	.3
.5	Low	.1

Function & Value Summary and Overall Rating

	Function & Value Parameters	Rating	Actual functional points	Possible Functional Points	Functional Units (Actual Points x Estimated AA Acreage)
A.	Listed/Proposed/Candidate T&E Species Habitat	Mod	.7	1	
B.	MNHP Species Habitat	Mod	.7	1	
C.	General Wildlife Habitat	High	1	1	
D.	General Fish/Aquatic Habitat	High	1	1	
E.	Flood Attenuation and Storage	High	.9	1	
F.	Sediment/Nutrient/Toxicant Removal	High	1	1	
G.	Sediment/Shoreline Stabilization	NA	NA	NA	
H.	Production Export/Food Chain Support	High	.9	1	
I.	Groundwater Discharge/Recharge	NA	NA	NA	
J.	Uniqueness	Mod	.5	1	
K.	Recreation/Education Potential	Low	.2	1	
L.	Dynamic Surface Water Storage	NA	NA	NA	
Totals			6.9	9	

Overall AA Rating (Circle appropriate category based on the criteria outlined below): 76%

I [✓ II] III IV

Category I Wetland - Must satisfy one of the following criteria:

- o Score of .9 or 1 functional point for Listed/Proposed/Candidate Threatened or Endangered Species; or
- o Score of .9 or 1 functional points for Uniqueness or "High" rating for Uniqueness and Condition (#12) is "Undisturbed"; or
- o Score of 1 functional point for Flood Attenuation and Storage and answer to Question 14.E.3 is "yes"; or
- o Total actual functional points > 80% (round to nearest tenth) of total possible functional points.

Category II Wetland - Does not satisfy criteria for Category I and:

- o Score of 1 functional point for Species Rated S1, S2, or S3 by the Montana Natural Heritage Program; or
- [✓ o] Score of 1 functional point for General Wildlife Habitat; or
- [✓ o] "High" ratings for both General Wildlife Habitat and General Fish/Aquatic Habitat; or
- o "High" rating for Uniqueness or
- [✓ o] Total actual functional points > 65% (round to nearest tenth) of total possible functional points.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

Category IV Wetland - Does not satisfy criteria for Category I, Category II, or Category III and:

- o "Low" rating for Uniqueness; and
- o "Low" rating for Production Export/Food Chain Support; and
- o Total actual functional points < 30% (round to nearest tenth) of total possible functional points.

Montana Wetland Field Evaluation Form *(revised 7/1/96)*

Kieffer

1. Project Name: MCS Welch Station	2. Project # and Control #:

3. Evaluation Date: 8/96	4. Evaluator(s): MME	5. Wetland/Site #(s): 4-1 (O'Keefe Creek portion)

6. Wetland Location(s):
O'Keefe Creek on Kieffer property; U.S. Highway 93 MP 6.62

7. Evaluation is to assess functions and values of:
X Wetlands that may be affected by an MDT project
____ Mitigation wetlands: pre-construction
____ Mitigation Wetlands: post-construction
____ Other:

8. Estimated total wetland size (acres): >20 (Extends offsite)

9. Estimated acreage of assessment area (AA): (see detailed instructions on how to determine AA) 2.4 acres

10. Classification of AA (HGM according to Brinson; system, subsystem,class, water regime, and special modifier according to Cowardin [1979])

HGM Class (Brinson)	System (Cowardin)	Subsystem (Cowardin)	Class (Cowardin)	Water Regime (Cowardin)	Modifier (Cowardin)	% of AA
Riverine	Riverine	Upper Perenn.	Open Water	Perm. Flooded	–	50
	Palustrine		Scrub/Shrub	Seas. Flooded	–	50

11. Circle estimated relative abundance (see definitions) of similarly classified sites within the same Major Montana Watershed Basin:
Rare Common [✓ Abundant]

12. Circle general condition of AA (see definitions): Undisturbed [✓ Encroached Upon] Directly Disturbed

13. Habitat Diversity

A). # of persistent vegetated classes (circle points)
≥3 = 5 points
2 = 3 points
[✓ ≤1 = 1 point]

B). Open water (see definition) in the AA is (circle points):
[✓ present = 2 points]
absent = 1 point

Comments:

Score is (A) x (B) = 2

Score	Rating	Functional Points
10	Excep	NA
5-6	High	NA
2-3	[✓ Mod]	[✓ NA]
1	Low	NA

14. Brief descriptive summary of AA and surrounding land use and habitat:
O'Keefe Creek + Shrub fringe bordered by cleared pasture, residences, commercial development, and U.S. Highway 93.

15. Functions and Values Assessment

15.a) Habitat for Federally Listed, Proposed, or Candidate Threatened or Endangered Plants or Animals
AA is documented or suspected (circle D or S) to receive:
D S Regular use or is designated critical habitat (list species):
D [✓ S] Occasional (infrequent, sporadic) use (list species): Grizzly bear, Gray wolf.
D S Incidental (chance, inconsequential) use (list species):
D S No use

Source(s) for documented use (e.g., observation, records, etc.):
Comments:
Within general wildlife movement corridor according to CSKT biologist.

Highest Level Use:	Rating	Functional Points
doc/reg	High	1
doc/occ	High	.9
sus/reg	Mod	.8
sus/occ	[✓ Mod]	[✓ .7]
doc/incid	Low	.5
sus/incid	Low	.3
none	None	0

15.b) Habitat for Plants or Animals Rated S1, S2, or S3 by the Montana Natural Heritage Program
(Not including species listed in 15.a) above.)
AA is documented or suspected (circle D or S) to receive:
[✓ D] S Regular use (list species): Westslope cutthroat trout
D S Occasional (infrequent, sporadic) use (list species):
D S Incidental (chance, inconsequential) use (list species):
D S No use

Source(s) for documented use (e.g., observation, records, etc.): MDFWP, MNHP
Comments:

Highest Level Use:	Rating	Functional Points
doc/reg	[✓ High]	[✓ 1]
doc/occ	High	.8
sus/reg	Mod	.7
sus/occ	Mod	.6
doc/incid	Low	.2
sus/incid	Low	.1
none	None	0

15.c) General Wildlife Habitat
AA is known or suspected (circle K or S) to receive (fill in blank) substantial (s), moderate (m), or little to no (l) use (see definitions for these terms) by the listed wildlife groups (see definitions for aquatic/semi-aquatic and non-aquatic wildlife)

K [✓ S] L Aquatic/semi-aquatic birds (list examples):
K [✓ S] M Non-aquatic birds (list examples):
K [✓ S] M Aquatic/semi-aquatic mammals (list examples):
K [✓ S] M Non-aquatic mammals (list examples):
K [✓ S] L Aquatic/semi-aquatic reptiles (list examples):
K [✓ S] M Non-aquatic reptiles (list examples):
K [✓ S] M Amphibians (list examples):
K [✓ S] M Invertebrates (list examples):

i. Assessed wildlife use (circle points):
≥3 s's or ≥5 m's + s's = [✓ 7 points]
1-2 s's or 2-4 m's = 3 points
No s's and < 2 m's = 1 point

ii. Habitat diversity from #13 (circle points)
High to exceptional rating = 3 points
Moderate rating = [✓ 2 points]
Low rating = 1 point

Comments:

Score is (i) x (ii) = 14

Score	Rating	Functional Points
21	High	1
14	[✓ High]	[✓ .9]
7	High	.8
9	High	.7
6	Mod	.5
3	Mod	.4
2	Low	.3
1	Low	.1

15.d) General Fish Habitat (If AA does not contain or is not surficially connected to a fish-bearing stream or standing water body [e.g., pond or lake], circle NA here and proceed to next function)

i. AA is known or suspected (circle K or S) to support listed groups for portion of their life cycle (circle points)
K S Native fish = [✓ 5 points]
K S Introduced game fish = 3 points
K S Introduced non-game fish = 2 points
K S No fish = 1 point

ii. Surface water in AA is (circle points):
Permanent/perennial = [✓ 3 points]
Seasonal/intermittent = 2 points
Temporary/ephemeral = 1 point

Comments:

Score	Rating	Functional Points
15	[✓ High]	[✓ 1]
10	High	.9
9	High	.8
6	Mod	.7
5	Mod	.6
3,4	Mod	.5
2	Low	.2
1	Low	.1

Score is (i) x (ii) = 15

15.e) Flood Attenuation and Storage (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in the AA are not flooded from in-channel or overbank flow, circle NA here and proceed to next function. See 15.l) Dynamic Surface Water Storage for wetlands that flood, but not from in-channel or overbank flow.)

i. Estimated acreage of jurisdictional wetland in the AA that is subject to periodic flooding (circle points):
Flooded wetlands ≥ 10 acres = 7 points
10 acres > Flooded wetlands > 2 acres = [✓ 5 points]
Flooded wetlands ≤ 2 acres = 1 point

ii. Estimated % of flooded wetland area classified as forested(fo), scrub-shrub (ss), or both (circle points)
> 75% fo/ss = [✓ 3 points]
25-75% fo/ss = 2 points
< 25% fo/ss = 1 point

iii. AA contains no outlet or restricted outlet = 1 point
AA contains unrestricted outlet = [✓ 0 points]

iv. Are residences, businesses, or other features which may be damaged by floods located within 0.5 miles downstream of AA? yes If so, list here: residences

Comments:

Score is [(i) x (ii)] + (iii) = 15

Score	Rating	Functional Points
22	High	1
16, 21	High	.9
14,15	[✓ High]	[✓ .8]
11	High	.7
8,10	Mod	.6
6,7	Mod	.5
5,4	Mod	.4
3	Low	.3
2	Low	.2
1	Low	.1

15.f) Sediment/Nutrient/Toxicant Retention and Removal
Circle true (T) of false (F) for each of the following statements:

i. [✓ T] F AA receives direct discharge of managed water (municipal or road stormwater drainage, agricultural drainsge, industrial/municipal wastewater) or accumulation of sediment/excess nutrients evident (deposits on vegetation, algal mats or other signs of eutrophication present) or immediate upstream land use has potential to deliver significant sediment/nutrient loads to AA.
ii. [✓ T] F Evidence of flooding or ponding occurs in AA.
iii. T [✓ F] AA contains restricted outlet or no outlet such that flow is slowed or detained.
iv. [✓ T] F Percent cover or emergent and/or dense woody vegetation in the AA exceeds 50%.

(i) is true and at least two of (ii),(iii), or (iv) are true = [✓ High rating]
Rating is neither High or Low = Moderate rating
(i) is false and at least two of (ii), (iii), or (iv) are false = Low rating

Comments:

Score	Rating	Functional Points
NA	[✓ High]	[✓ 1]
NA	Mod	.5
NA	Low	.1

15.g) Sediment/Shoreline Stabilization (applies only if AA occurs on or within the banks of a river, stream, or other natural or manmade drainage, or on the shoreline of a standing water body which has a maximum depth exceeding 6.6 feet at low water (e.g., subject to wave action). If does not apply, circle NA here and proceed to next function.

i. Estimated % cover of rooted vegetated component in AA (circle points)
> 30% rooted vegetation = [✓ 3 points]
10-30% rooted vegetation = 2 points
< 10% rooted vegetation = 1 point

ii. Water body adjacent to rooted vegetation is (circle points):
Permanent/perennial = [✓ 5 points]
Seasonal/intermittent = 3 points
Temporary/ephemeral = 2 points

Comments:

Score is (i) x (ii) = 5

Score	Rating	Functional Points
15	[✓ High]	[✓ 1]
9	High	.9
10	High	.8
6	Mod	.7
4	Mod	.5
5	Mod	.4
3	Low	.2
2	Low	.1

15.h) Production Export/Food Chain Support
i. Acreage of vegetated component in AA (circle points)
> 5 acres = 10 points
1-5 acres = [✓ 5 points]
<1 acre = 1 point

ii. Habitat diversity rating (from #13: circle points)
High - Exceptional = 3 points
Moderate = [✓ 2 points]
Low = 1 point

iii. Outlet presence (circle points)
AA contains an outlet = [✓ 3 points]
AA contains no outlet = 1 point

iv. Surface water in AA is (circle points):
Permanent/perennial = [✓ 3 points]
Seasonal/intermittent = 2 points
Temporary/ephemeral or absent = 1 point

Comments:

10 9
Score is [(i) x (ii)] + [(iii) x (iv)] = 19

Score	Rating	Functional Points
39	High	1
21-36	High	.9
16-19	[✓ High]	[✓ .8]
10-14	Mod	.7
8-9	Mod	.6
7	Mod	.5
5,6	Low	.4
4	Low	.3
3	Low	.2
2	Low	.1

15.i) Groundwater Discharge/Recharge
i. Check the discharge indicators listed below that apply to the AA
____Springs are known or observed in the AA.
____Vegetation is growing during dormant season or drought.
____Wetland occurs at the toe of a natural slope.
☒ Other: Likely receives discharge
____Seeps are present at the wetland edge.
____AA permanently flooded during drought periods.
____Wetland contains an outlet, but no inlet.

ii. Check the recharge indicators listed below that apply to the AA
____Permeable substrate present without underlying impeding layer.
____Wetland contains inlet, but no outlet.
____Other:

AA is known discharge or recharge area or one or more indicators of discharge or recharge present = [✓ High rating]
No discharge or recharge indicators present = Low rating
Available information pertaining to AA is inadequate to judge discharge/recharge potential = Unknown

Comments:

Score	Rating	Functional Points
NA	[✓ High]	[✓ 1]
NA	Low	.1
NA	Unkn	NA

15.j) Uniqueness
i. Estimated relative abundance of similarly classified sites within the Major Watershed Basin (#11: circle points):
Rare = 3 points
Common = 2 points
Abundant = [✓ 1 point]

ii. Replacement potential/habitat diversity (#12: circle points):
AA is/contains bog, fen, warm springs or mature (>80 years) forested wetland = 10 points
AA does not contain above but habitat diversity is high - exceptional = 3 points
AA does not contain above and habitat diversity is low - moderate = [✓ 1 point]

iii. Condition of AA (from #12: circle points):
Undisturbed = 3 points
Encroached Upon = [✓ 2 points]
Directly Disturbed = 1 point

Comments:

1 2
Score is [(i) x (ii)] + (iii) = 3

Score	Rating	Functional Points
33	High	1
31,32	High	.9
22,23	High	.8
12-21	High	.7
10,11	Mod	.6
8,9	Mod	.5
5,6,7	Mod	.4
4	Low	.3
2,3	[✓ Low]	[✓ .2]
1	Low	.1

15.k) Recreation/Education Potential
i. Is the AA a known rec/ed site (circle)? Y [✓ N] (If yes, rate as High and go to ii. If no, go to iii.)
ii. Check the categories listed below that apply to the AA:
____education/scientific study
☒ consumptive recreation
____non-consumptive recreation
____others:
iii. Based on the location, diversity, size, and other attributes of the site, is there strong potential for recreational/educational use (circle)? [✓ Y] N (If yes, go to ii, then proceed to iv. If no, rate as Low [.1].)

iv. Condition of AA (from #12: circle points):
Undisturbed = 3 points
Encroached Upon = [✓ 2 points]
Directly Disturbed = 1 point

v. Ownership of AA (circle points):
Public = 2 points
Private = [✓ 1 point]

Comments:

Score is (iv) x (v) = 2

Score	Rating	Functional Points
6	High	1
3	Mod	.7
4	Mod	.5
2	[✓ Low]	[✓ .2]
1	Low	.1

U-1

15.l) Dynamic Surface Water Storage (applies to wetlands that do not flood from overbank or in-channel flow, but flood via ppt., upland surface flow, or groundwater flow. If no jurisdictional wetlands in the AA are subject to flooding, circle [✓ NA] here and proceed with the evaluation.)

i. Estimated acreage of jurisdictional wetland in the AA that is subject to periodic flooding (circle points):

Flooded wetlands ≥5acres =	3 points
5 acres > Flooded wetlands > 1 acre =	2 points
Flooded wetlands < 1 acre =	.5 point

Comments:

ii. Estimated flood frequency (circle points)

Wetland floods ≥ 5/10 years = 2 points

Wetland floods < 5/10 years = 1 point

Score is (i) x (ii) = _____

Score	Rating	Functional Points
6	High	1
4	High	.8
2,3	Mod	.5
1	Low	.3
.5	Low	.1

Function & Value Summary and Overall Rating

Function & Value Parameters		Rating	Actual functional points	Possible Functional Points	Functional Units (Actual Points x Estimated AA Acreage)
A.	Listed/Proposed/Candidate T&E Species Habitat	Mod	.7	1	
B.	MNHP Species Habitat	High	1	1	
C.	General Wildlife Habitat	High	.9	1	
D.	General Fish/Aquatic Habitat	High	1	1	
E.	Flood Attenuation and Storage	High	.6	1	
F.	Sediment/Nutrient/Toxicant Removal	High	1	1	
G.	Sediment/Shoreline Stabilization	High	1	1	
H.	Production Export/Food Chain Support	High	.8	1	
I.	Groundwater Discharge/Recharge	High	1	1	
J.	Uniqueness	Low	.2	1	
K.	Recreation/Education Potential	Low	.2	1	
L.	Dynamic Surface Water Storage	NA	NA	NA	
Totals			8.6	11	

Overall AA Rating (Circle appropriate category based on the criteria outlined below): 78%

I II III IV

Category I Wetland - Must satisfy one of the following criteria:

- o Score of .9 or 1 functional point for Listed/Proposed/Candidate Threatened or Endangered Species; or
- o Score of .9 or 1 functional points for Uniqueness or "High" rating for Uniqueness and Condition (#12) is "Undisturbed"; or
- o Score of 1 functional point for Flood Attenuation and Storage and answer to Question 14.E.3 is "yes"; or
- o Total actual functional points > 80% (round to nearest tenth) of total possible functional points.

Category II Wetland - Does not satisfy criteria for Category I and:

- [✓ o] Score of 1 functional point for Species Rated S1, S2, or S3 by the Montana Natural Heritage Program; or
- [✓ o] Score of 1 functional point for General Wildlife Habitat; or
- [✓ o] "High" ratings for both General Wildlife Habitat and General Fish/Aquatic Habitat; or
- o "High" rating for Uniqueness or
- [✓ o] Total actual functional points > 65% (round to nearest tenth) of total possible functional points.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

Category IV Wetland - Does not satisfy criteria for Category I, Category II, or Category III and:

- o "Low" rating for Uniqueness; and
- o "Low" rating for Production Export/Food Chain Support; and
- o Total actual functional points < 30% (round to nearest tenth) of total possible functional points.

Montana Wetland Field Evaluation Form *(revised 7/1/96)*

Kleppel 4-1

1. Project Name: MCS Weigh Station	2. Project # and Control #:

3. Evaluation Date: 8/96	4. Evaluator(s): MME	5. Wetland/Site #(s): 4-1 (Wet Meadow Portion)

6. Wetland Location(s): Adjacent to O'Keefe Creek, Kleppel property, U.S. Highway 93 MP 6.62

7. Evaluation is to assess functions and values of:
_X_ Wetlands that may be affected by an MDT project
____ Mitigation wetlands: pre-construction
____ Mitigation Wetlands: post-construction
____ Other:

8. Estimated total wetland size (acres): 5 acres

9. Estimated acreage of assessment area (AA): (see detailed instructions on how to determine AA) 5 acres

10. Classification of AA (HGM according to Brinson; system, subsystem, class, water regime, and special modifier according to Cowardin [1979])

HGM Class (Brinson)	System (Cowardin)	Subsystem (Cowardin)	Class (Cowardin)	Water Regime (Cowardin)	Modifier (Cowardin)	% of AA
Riverine	Palustrine	–	Emergent	Seas. flooded	–	90
	Palustrine		Scrub/Shrub	Seas. flooded	–	10

11. Circle estimated relative abundance (see definitions) of similarly classified sites within the same Major Montana Watershed Basin:
Rare [✓ Common] Abundant

12. Circle general condition of AA (see definitions): Undisturbed Encroached Upon Directly Disturbed

13. Habitat Diversity

A). # of persistent vegetated classes (circle points)
≥3 = 5 points
[✓ 2 = 3 points]
≤1 = 1 point

B). Open water (see definition) in the AA is (circle points):
present = 2 points
[✓ absent = 1 point]

Comments:

Score is (A) x (B) = 3

Score	Rating	Functional Points
10	Excep	NA
5-6	High	NA
2-3	[✓ Mod]	[✓ NA]
1	Low	NA

14. Brief descriptive summary of AA and surrounding land use and habitat:
Wet meadow seasonally flooded by O'Keefe Creek - bordered by O'Keefe Creek, upland pasture, and U.S. Highway 93.

15. Functions and Values Assessment

15.a) Habitat for Federally Listed, Proposed, or Candidate Threatened or Endangered Plants or Animals
AA is documented or suspected (circle D or S) to receive:
D S Regular use or is designated critical habitat (list species):
D S Occasional (infrequent, sporadic) use (list species):
D [✓ S] Incidental (chance, inconsequential) use (list species): Grizzly bear, gray wolf
D S No use

Source(s) for documented use (e.g., observation, records, etc.):
Comments:
Wetland is within general wildlife movement corridor identified by CSKT biologists.

Highest Level Use:	Rating	Functional Points
doc/reg	High	1
doc/occ	High	.9
sus/reg	Mod	.8
sus/occ	Mod	.7
doc/incid	Low	.5
sus/incid	[✓ Low]	[✓ .3]
none	None	0

15.b) Habitat for Plants or Animals Rated S1, S2, or S3 by the Montana Natural Heritage Program
(Not including species listed in 15.a) above.)
AA is documented or suspected (circle D or S) to receive:
D S Regular use (list species):
D S Occasional (infrequent, sporadic) use (list species):
D S Incidental (chance, inconsequential) use (list species):
D [✓ S] No use

Source(s) for documented use (e.g., observation, records, etc.):
Comments:

Highest Level Use:	Rating	Functional Points
doc/reg	High	1
doc/occ	High	.8
sus/reg	Mod	.7
sus/occ	Mod	.6
doc/incid	Low	.2
sus/incid	Low	.1
none	[✓ None]	[✓ 0]

15.c) General Wildlife Habitat
AA is known or suspected (circle K or S) to receive (fill in blank) substantial (s), moderate (m), or little to no (l) use (see definitions for these terms) by the listed wildlife groups (see definitions for aquatic/semi-aquatic and non-aquatic wildlife)

K [✓ S] M Aquatic/semi-aquatic birds (list examples): Shorebirds
K [✓ S] L Non-aquatic birds (list examples):
K [✓ S] L Aquatic/semi-aquatic mammals (list examples):
K [✓ S] M Non-aquatic mammals (list examples): Deer, Raccoon, coyote
K [✓ S] L Aquatic/semi-aquatic reptiles (list examples):
K [✓ S] L Non-aquatic reptiles (list examples):
K [✓ S] L Amphibians (list examples):
K [✓ S] L Invertebrates (list examples):

i. Assessed wildlife use (circle points):
≥3 s's or ≥5 m's + s's = 7 points
1-2 s's or 2-4 m's = [✓ 3 points]
No s's and < 2 m's = 1 point

ii. Habitat diversity from #13 (circle points)
High to exceptional rating = 3 points
Moderate rating = [✓ 2 points]
Low rating = 1 point

Comments:

Score	Rating	Functional Points
21	High	1
14	High	.9
7	High	.8
9	High	.7
6	[✓ Mod]	[✓ .5]
3	Mod	.4
2	Low	.3
1	Low	.1

Score is (i) x (ii) = 6

15.d) General Fish Habitat (If AA does not contain or is not surficially connected to a fish-bearing stream or standing water body [e.g., pond or lake], circle [✓ NA] here and proceed to next function)

i. AA is known or suspected (circle K or S) to support listed groups for portion of their life cycle (circle points)
K S Native fish = 5 points
K S Introduced game fish = 3 points
K S Introduced non-game fish = 2 points
K S No fish = 1 point

ii. Surface water in AA is (circle points):
Permanent/perennial = 3 points
Seasonal/intermittent = 2 points
Temporary/ephemeral = 1 point

Comments:

Score	Rating	Functional Points
15	High	1
10	High	.9
9	High	.8
6	Mod	.7
5	Mod	.6
3,4	Mod	.5
2	Low	.2
1	Low	.1

Score is (i) x (ii) = ______

15.e) Flood Attenuation and Storage (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in the AA are not flooded from in-channel or overbank flow, circle NA here and proceed to next function. See 15.l) Dynamic Surface Water Storage for wetlands that flood, but not from in-channel or overbank flow.)

i. Estimated acreage of jurisdictional wetland in the AA that is subject to periodic flooding (circle points):
Flooded wetlands ≥ 10 acres = 7 points
10 acres > Flooded wetlands > 2 acres = [✓ 5 points]
Flooded wetlands ≤ 2 acres = 1 point

ii. Estimated % of flooded wetland area classified as forested(fo), scrub-shrub (ss), or both (circle points)
> 75% fo/ss = 3 points
25-75% fo/ss = 2 points
< 25% fo/ss = [✓ 1 point]

iii. AA contains no outlet or restricted outlet = [✓ 1 point]
AA contains unrestricted outlet = 0 points

iv. Are residences, businesses, or other features which may be damaged by floods located within 0.5 miles downstream of AA? yes If so, list here: residences

Comments:

Score is [(i) x (ii)] + (iii) = 6

Score	Rating	Functional Points
22	High	1
16, 21	High	.9
14,15	High	.8
11	High	.7
8,10	Mod	.6
6,7	[✓ Mod]	[✓ .5]
5,4	Mod	.4
3	Low	.3
2	Low	.2
1	Low	.1

15.f) Sediment/Nutrient/Toxicant Retention and Removal
Circle true (T) of false (F) for each of the following statements:

i. [✓ T] F AA receives direct discharge of managed water (municipal or road stormwater drainage, agricultural drainsge, industrial/municipal wastewater) or accumulation of sediment/excess nutrients evident (deposits on vegetation, algal mats or other signs of eutrophication present) or immediate upstream land use has potential to deliver significant sediment/nutrient loads to AA.
ii. [✓ T] F Evidence of flooding or ponding occurs in AA.
iii. [✓ T] F AA contains restricted outlet or no outlet such that flow is slowed or detained.
iv. [✓ T] F Percent cover or emergent and/or dense woody vegetation in the AA exceeds 50%.

(i) is true and at least two of (ii),(iii), or (iv) are true = [✓ High rating]
Rating is neither High or Low = Moderate rating
(i) is false and at least two of (ii), (iii), or (iv) are false = Low rating

Comments:

Score	Rating	Functional Points
NA	[✓ High]	[✓ 1]
NA	Mod	.5
NA	Low	.1

7-1

15.g) Sediment/Shoreline Stabilization (applies only if AA occurs on or within the banks of a river, stream, or other natural or manmade drainage, or on the shoreline of a standing water body which has a maximum depth exceeding 6.6 feet at low water (e.g., subject to wave action). If does not apply, circle [✓ NA] here and proceed to next function.

i. Estimated % cover of rooted vegetated component in AA (circle points)
> 30% rooted vegetation = 3 points
10-30% rooted vegetation = 2 points
< 10% rooted vegetation = 1 point

ii. Water body adjacent to rooted vegetation is (circle points):
Permanent/perennial = 5 points
Seasonal/intermittent = 3 points
Temporary/ephemeral = 2 points

Comments:

Score is (i) x (ii) = ______

Score	Rating	Functional Points
15	High	1
9	High	.9
10	High	.8
6	Mod	.7
4	Mod	.5
5	Mod	.4
3	Low	.2
2	Low	.1

15.h) Production Export/Food Chain Support

i. Acreage of vegetated component in AA (circle points)
> 5 acres = 10 points
1-5 acres = [✓ 5 points]
<1 acre = 1 point

ii. Habitat diversity rating (from #13: circle points)
High - Exceptional = 3 points
Moderate = 2 points
Low = [✓ 1 point]

iii. Outlet presence (circle points)
AA contains an outlet = 3 points
AA contains no outlet = [✓ 1 point]

iv. Surface water in AA is (circle points):
Permanent/perennial = 3 points
Seasonal/intermittent = [✓ 2 points]
Temporary/ephemeral or absent = 1 point

Comments:

5 2
Score is [(i) x (ii)] + [(iii) x (iv)] = 7

Score	Rating	Functional Points
39	High	1
21-36	High	.9
16-19	High	.8
10-14	Mod	.7
8-9	Mod	.6
7	[✓ Mod]	[✓ .5]
5,6	Low	.4
4	Low	.3
3	Low	.2
2	Low	.1

15.i) Groundwater Discharge/Recharge

i. Check the discharge indicators listed below that apply to the AA
____Springs are known or observed in the AA.
____Vegetation is growing during dormant season or drought.
____Wetland occurs at the toe of a natural slope.
____Other:
____Seeps are present at the wetland edge.
____AA permanently flooded during drought periods.
____Wetland contains an outlet, but no inlet.

Score	Rating	Functional Points
NA	High	1
NA	[✓ Low]	[✓ .1]
NA	Unkn	NA

ii. Check the recharge indicators listed below that apply to the AA
____Permeable substrate present without underlying impeding layer.
____Wetland contains inlet, but no outlet.
____Other:

AA is known discharge or recharge area or one or more indicators of discharge or recharge present = High rating
No discharge or recharge indicators present = [✓ Low rating]
Available information pertaining to AA is inadequate to judge discharge/recharge potential = Unknown

Comments:

15.j) Uniqueness

i. Estimated relative abundance of similarly classified sites within the Major Watershed Basin (#11: circle points):
Rare = 3 points
Common = [✓ 2 points]
Abundant = 1 point

ii. Replacement potential/habitat diversity (#12: circle points):
AA is/contains bog, fen, warm springs or mature (>80 years) forested wetland = 10 points
AA does not contain above but habitat diversity is high - exceptional = 3 points
AA does not contain above and habitat diversity is low - moderate = [✓ 1 point]

iii. Condition of AA (from #12: circle points):
Undisturbed = 3 points
Encroached Upon = [✓ 2 points]
Directly Disturbed = 1 point

Comments:

2 2
Score is [(i) x (ii)] + (iii) = 4

Score	Rating	Functional Points
33	High	1
31,32	High	.9
22,23	High	.8
12-21	High	.7
10,11	Mod	.6
8,9	Mod	.5
5,6,7	Mod	.4
4	[✓ Low]	[✓ .3]
2,3	Low	.2
1	Low	.1

15.k) Recreation/Education Potential

i. Is the AA a known rec/ed site (circle)? Y [✓ N] (If yes, rate as High and go to ii. If no, go to iii.)
ii. Check the categories listed below that apply to the AA:
____education/scientific study
____consumptive recreation
____non-consumptive recreation
____others:
iii. Based on the location, diversity, size, and other attributes of the site, is there strong potential for recreational/educational use (circle)? Y [✓ N] (If yes, go to ii, then proceed to iv. If no, rate as Low [.1].)

iv. Condition of AA (from #12: circle points):
Undisturbed = 3 points
Encroached Upon = 2 points
Directly Disturbed = 1 point

v. Ownership of AA (circle points):
Public = 2 points
Private = 1 point

Comments:

Score	Rating	Functional Points
6	High	1
3	Mod	.7
4	Mod	.5
2	Low	.2
1	[✓ Low]	[✓ .1]

Score is (iv) x (v) = ______

4-1

15.1) Dynamic Surface Water Storage (applies to wetlands that do not flood from overbank or in-channel flow, but flood via ppt., upland surface flow, or groundwater flow. If no jurisdictional wetlands in the AA are subject to flooding, circle [✓ NA] here and proceed with the evaluation.)

i. Estimated acreage of jurisdictional wetland in the AA that is subject to periodic flooding (circle points):

Flooded wetlands ≥5acres =	3 points
5 acres > Flooded wetlands > 1 acre =	2 points
Flooded wetlands < 1 acre =	.5 point

Comments:

ii. Estimated flood frequency (circle points)

Wetland floods ≥ 5/10 years = 2 points
Wetland floods < 5/10 years = 1 point

Score is (i) x (ii) = _____

Score	Rating	Functional Points
6	High	1
4	High	.8
2,3	Mod	.5
1	Low	.3
.5	Low	.1

Function & Value Summary and Overall Rating

Function & Value Parameters		Rating	Actual functional points	Possible Functional Points	Functional Units (Actual Points x Estimated AA Acreage)
A.	Listed/Proposed/Candidate T&E Species Habitat	Low	.3	1	
B.	MNHP Species Habitat	None	0	1	
C.	General Wildlife Habitat	Mod	.5	1	
D.	General Fish/Aquatic Habitat	NA	NA	NA	
E.	Flood Attenuation and Storage	Mod	.5	1	
F.	Sediment/Nutrient/Toxicant Removal	High	1	1	
G.	Sediment/Shoreline Stabilization	NA	NA	NA	
H.	Production Export/Food Chain Support	Mod	.5	1	
I.	Groundwater Discharge/Recharge	Low	.1	1	
J.	Uniqueness	Low	.3	1	
K.	Recreation/Education Potential	Low	.1	1	
L.	Dynamic Surface Water Storage	NA	NA	NA	
Totals			3.3	9	

Overall AA Rating (Circle appropriate category based on the criteria outlined below): 37%

I II [✓ III] IV

Category I Wetland - Must satisfy one of the following criteria:

- o Score of .9 or 1 functional point for Listed/Proposed/Candidate Threatened or Endangered Species; or
- o Score of .9 or 1 functional points for Uniqueness or "High" rating for Uniqueness and Condition (#12) is "Undisturbed"; or
- o Score of 1 functional point for Flood Attenuation and Storage and answer to Question 14.E.3 is "yes"; or
- o Total actual functional points > 80% (round to nearest tenth) of total possible functional points.

Category II Wetland - Does not satisfy criteria for Category I and:

- o Score of 1 functional point for Species Rated S1, S2, or S3 by the Montana Natural Heritage Program; or
- o Score of 1 functional point for General Wildlife Habitat; or
- o "High" ratings for both General Wildlife Habitat and General Fish/Aquatic Habitat; or
- o "High" rating for Uniqueness or
- o Total actual functional points > 65% (round to nearest tenth) of total possible functional points.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

Category IV Wetland - Does not satisfy criteria for Category I, Category II, or Category III and:

- o "Low" rating for Uniqueness; and
- o "Low" rating for Production Export/Food Chain Support; and
- o Total actual functional points < 30% (round to nearest tenth) of total possible functional points.

Montana Wetland Field Evaluation Form (revised 7/1/96) [illegible]

1. Project Name: MCS Wleish Station	2. Project # and Control #:

3. Evaluation Date: 8/96	4. Evaluator(s): MME	5. Wetland/Site #(s): 4-2 + 4-3

6. Wetland Location(s): East of US Highway 93, between highway + railroad, East of [illegible], MP 6.62

7. Evaluation is to assess functions and values of:
☒ Wetlands that may be affected by an MDT project
☐ Mitigation wetlands: pre-construction
☐ Mitigation Wetlands: post-construction
☐ Other:

8. Estimated total wetland size (acres): <1 = 4-3, 1 to 3 = 4-3 (extends offsite)

9. Estimated acreage of assessment area (AA): (see detailed instructions on how to determine AA) both < 1 acre

10. Classification of AA (HGM according to Brinson; system, subsystem, class, water regime, and special modifier according to Cowardin [1979])

HGM Class (Brinson)	System (Cowardin)	Subsystem (Cowardin)	Class (Cowardin)	Water Regime (Cowardin)	Modifier (Cowardin)	% of AA
Riverine	Palustrine	—	Emergent	Temp. flooded/ Saturated	Excavated	100

11. Circle estimated relative abundance (see definitions) of similarly classified sites within the same Major Montana Watershed Basin:
Rare Common [✓ Abundant]

12. Circle general condition of AA (see definitions): Undisturbed [✓ Encroached Upon] Directly Disturbed

13. Habitat Diversity

A). # of persistent vegetated classes (circle points)
≥3 = 5 points
2 = 3 points
[✓ ≤1 = 1 point]

B). Open water (see definition) in the AA is (circle points):
present = 2 points
[✓ absent = 1 point]

Comments:

Score is (A) x (B) = 1

Score	Rating	Functional Points
10	Excep	NA
5-6	High	NA
2-3	Mod	NA
1	[✓ Low]	[✓ NA]

14. Brief descriptive summary of AA and surrounding land use and habitat:
Excavated ditches between highway and railroad tracks.

15. Functions and Values Assessment

15.a) Habitat for Federally Listed, Proposed, or Candidate Threatened or Endangered Plants or Animals
AA is documented or suspected (circle D or S) to receive:
D S Regular use or is designated critical habitat (list species):
D S Occasional (infrequent, sporadic) use (list species):
D S Incidental (chance, inconsequential) use (list species):
D [✓ S] No use

Source(s) for documented use (e.g., observation, records, etc.):
Comments:

Highest Level Use:	Rating	Functional Points
doc/reg	High	1
doc/occ	High	.9
sus/reg	Mod	.8
sus/occ	Mod	.7
doc/incid	Low	.5
sus/incid	Low	.3
none	[✓ None]	[✓ 0]

15.b) Habitat for Plants or Animals Rated S1, S2, or S3 by the Montana Natural Heritage Program (Not including species listed in 15.a) above.)
AA is documented or suspected (circle D or S) to receive:
D S Regular use (list species):
D S Occasional (infrequent, sporadic) use (list species):
D S Incidental (chance, inconsequential) use (list species):
D [✓ S] No use

Source(s) for documented use (e.g., observation, records, etc.):
Comments:

Highest Level Use:	Rating	Functional Points
doc/reg	High	1
doc/occ	High	.8
sus/reg	Mod	.7
sus/occ	Mod	.6
doc/incid	Low	.2
sus/incid	Low	.1
none	[✓ None]	[✓ 0]

15.c) General Wildlife Habitat

AA is known or suspected (circle K or S) to receive (fill in blank) substantial (s), moderate (m), or little to no (l) use (see definitions for these terms) by the listed wildlife groups (see definitions for aquatic/semi-aquatic and non-aquatic wildlife)

K [✓ S] L Aquatic/semi-aquatic birds (list examples):
K [✓ S] L Non-aquatic birds (list examples):
K [✓ S] L Aquatic/semi-aquatic mammals (list examples):
K [✓ S] M Non-aquatic mammals (list examples): Deer, raccoon, coyote
K [✓ S] L Aquatic/semi-aquatic reptiles (list examples):
K [✓ S] L Non-aquatic reptiles (list examples):
K [✓ S] L Amphibians (list examples):
K [✓ S] L Invertebrates (list examples):

i. Assessed wildlife use (circle points):
≥3 s's or ≥5 m's + s's = 7 points
1-2 s's or 2-4 m's = 3 points
No s's and < 2 m's = [✓ 1 point]

ii. Habitat diversity from #13 (circle points)
High to exceptional rating = 3 points
Moderate rating = 2 points
Low rating = [✓ 1 point]

Comments:

Score	Rating	Functional Points
21	High	1
14	High	.9
7	High	.8
9	High	.7
6	Mod	.5
3	Mod	.4
2	Low	.3
1	[✓ Low]	[✓ .1]

Score is (i) x (ii) = 1

15.d) General Fish Habitat (If AA does not contain or is not surficially connected to a fish-bearing stream or standing water body [e.g., pond or lake], circle [✓ NA] here and proceed to next function)

i. AA is known or suspected (circle K or S) to support listed groups for portion of their life cycle (circle points)
K S Native fish = 5 points
K S Introduced game fish = 3 points
K S Introduced non-game fish = 2 points
K S No fish = 1 point

ii. Surface water in AA is (circle points):
Permanent/perennial = 3 points
Seasonal/intermittent = 2 points
Temporary/ephemeral = 1 point

Comments:

Score	Rating	Functional Points
15	High	1
10	High	.9
9	High	.8
6	Mod	.7
5	Mod	.6
3,4	Mod	.5
2	Low	.2
1	Low	.1

Score is (i) x (ii) = ______

15.e) Flood Attenuation and Storage (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in the AA are not flooded from in-channel or overbank flow, circle NA here and proceed to next function. See 15.l) Dynamic Surface Water Storage for wetlands that flood, but not from in-channel or overbank flow.)

i. Estimated acreage of jurisdictional wetland in the AA that is subject to periodic flooding (circle points):
Flooded wetlands ≥ 10 acres = 7 points
10 acres > Flooded wetlands > 2 acres = 5 points
Flooded wetlands ≤ 2 acres = [✓ 1 point]

ii. Estimated % of flooded wetland area classified as forested(fo), scrub-shrub (ss), or both (circle points)
> 75% fo/ss = 3 points
25-75% fo/ss = 2 points
< 25% fo/ss = [✓ 1 point]

iii. AA contains no outlet or restricted outlet = 1 point
AA contains unrestricted outlet = [✓ 0 points]

iv. Are residences, businesses, or other features which may be damaged by floods located within 0.5 miles downstream of AA? yes If so, list here: residences

Comments:

Score is [(i) x (ii)] + (iii) = 1

Score	Rating	Functional Points
22	High	1
16, 21	High	.9
14,15	High	.8
11	High	.7
8,10	Mod	.6
6,7	Mod	.5
5,4	Mod	.4
3	Low	.3
2	Low	.2
1	[✓ Low]	[✓ .1]

15.f) Sediment/Nutrient/Toxicant Retention and Removal

Circle true (T) or false (F) for each of the following statements:

i. [✓ T] F AA receives direct discharge of managed water (municipal or road stormwater drainage, agricultural drainsge, industrial/municipal wastewater) or accumulation of sediment/excess nutrients evident (deposits on vegetation, algal mats or other signs of eutrophication present) or immediate upstream land use has potential to deliver significant sediment/nutrient loads to AA.
ii. [✓ T] F Evidence of flooding or ponding occurs in AA.
iii. T [✓ F] AA contains restricted outlet or no outlet such that flow is slowed or detained.
iv. [✓ T] F Percent cover or emergent and/or dense woody vegetation in the AA exceeds 50%.

(i) is true and at least two of (ii),(iii), or (iv) are true = [✓ High rating]
Rating is neither High or Low = Moderate rating
(i) is false and at least two of (ii), (iii), or (iv) are false = Low rating

Comments:

Score	Rating	Functional Points
NA	[✓ High]	[✓ 1]
NA	Mod	.5
NA	Low	.1

15.g) Sediment/Shoreline Stabilization (applies only if AA occurs on or within the banks of a river, stream, or other natural or manmade drainage, or on the shoreline of a standing water body which has a maximum depth exceeding 6.6 feet at low water (e.g., subject to wave action). If does not apply, circle NA here and proceed to next function.

i. Estimated % cover of rooted vegetated component in AA (circle points)
> 30% rooted vegetation = [✓ 3 points]
10-30% rooted vegetation = 2 points
< 10% rooted vegetation = 1 point

ii. Water body adjacent to rooted vegetation is (circle points):
Permanent/perennial = 5 points
Seasonal/intermittent = 3 points
Temporary/ephemeral = [✓ 2 points]

Comments:

Score is (i) x (ii) = 6

Score	Rating	Functional Points
15	High	1
9	High	.9
10	High	.8
6	[✓ Mod]	[✓ .7]
4	Mod	.5
5	Mod	.4
3	Low	.2
2	Low	.1

15.h) Production Export/Food Chain Support
i. Acreage of vegetated component in AA (circle points)
> 5 acres = 10 points
1-5 acres = 5 points
<1 acre = [✓ 1 point]

ii. Habitat diversity rating (from #13: circle points)
High - Exceptional = 3 points
Moderate = 2 points
Low = [✓ 1 point]

iii. Outlet presence (circle points)
AA contains an outlet = [✓ 3 points]
AA contains no outlet = 1 point

iv. Surface water in AA is (circle points):
Permanent/perennial = 3 points
Seasonal/intermittent = 2 points
Temporary/ephemeral or absent = [✓ 1 point]

Comments:

Score is [(i) x (ii)] + [(iii) x (iv)] = 4
1 3

Score	Rating	Functional Points
39	High	1
21-36	High	.9
16-19	High	.8
10-14	Mod	.7
8-9	Mod	.6
7	Mod	.5
5,6	Low	.4
4	[✓ Low]	[✓ .3]
3	Low	.2
2	Low	.1

15.i) Groundwater Discharge/Recharge
i. Check the discharge indicators listed below that apply to the AA
____Springs are known or observed in the AA.
____Vegetation is growing during dormant season or drought.
____Wetland occurs at the toe of a natural slope.
____Other:
____Seeps are present at the wetland edge.
____AA permanently flooded during drought periods.
____Wetland contains an outlet, but no inlet.

Score	Rating	Functional Points
NA	High	1
NA	[✓ Low]	[✓ .1]
NA	Unkn	NA

ii. Check the recharge indicators listed below that apply to the AA
____Permeable substrate present without underlying impeding layer.
____Wetland contains inlet, but no outlet.
____Other:

AA is known discharge or recharge area or one or more indicators of discharge or recharge present = High rating
No discharge or recharge indicators present = [✓ Low rating]
Available information pertaining to AA is inadequate to judge discharge/recharge potential = Unknown

Comments:

15.j) Uniqueness
i. Estimated relative abundance of similarly classified sites within the Major Watershed Basin (#11: circle points):
Rare = 3 points
Common = 2 points
Abundant = [✓ 1 point]

ii. Replacement potential/habitat diversity (#12: circle points):
AA is/contains bog, fen, warm springs or mature (>80 years) forested wetland = 10 points
AA does not contain above but habitat diversity is high - exceptional = 3 points
AA does not contain above and habitat diversity is low - moderate = [✓ 1 point]

iii. Condition of AA (from #12: circle points):
Undisturbed = 3 points
Encroached Upon = [✓ 2 points]
Directly Disturbed = 1 point

Comments:

Score is [(i) x (ii)] + (iii) = 3
1 2

Score	Rating	Functional Points
33	High	1
31,32	High	.9
22,23	High	.8
12-21	High	.7
10,11	Mod	.6
8,9	Mod	.5
5,6,7	Mod	.4
4	Low	.3
2,3	[✓ Low]	[✓ .2]
1	Low	.1

15.k) Recreation/Education Potential
i. Is the AA a known rec/ed site (circle)? Y [✓ N] (If yes, rate as High and go to ii. If no, go to iii.)
ii. Check the categories listed below that apply to the AA:
___education/scientific study
___consumptive recreation
___non-consumptive recreation
___others:
iii. Based on the location, diversity, size, and other attributes of the site, is there strong potential for recreational/educational use (circle)? Y [✓ N] (If yes, go to ii, then proceed to iv. If no, rate as Low [.1].)

iv. Condition of AA (from #12: circle points):
Undisturbed = 3 points
Encroached Upon = 2 points
Directly Disturbed = 1 point

v. Ownership of AA (circle points):
Public = 2 points
Private = 1 point

Score	Rating	Functional Points
6	High	1
3	Mod	.7
4	Mod	.5
2	Low	.2
1	[✓ Low]	[✓ .1]

Comments:

Score is (iv) x (v) = ______

4-2,3

15.l) Dynamic Surface Water Storage (applies to wetlands that do not flood from overbank or in-channel flow, but flood via ppt., upland surface flow, or groundwater flow. If no jurisdictional wetlands in the AA are subject to flooding, circle [✓ NA] here and proceed with the evaluation.)

i. Estimated acreage of jurisdictional wetland in the AA that is subject to periodic flooding (circle points):

Flooded wetlands ≥5acres =	3 points
5 acres > Flooded wetlands > 1 acre =	2 points
Flooded wetlands < 1 acre =	.5 point

Comments:

ii. Estimated flood frequency (circle points)

Wetland floods ≥ 5/10 years = 2 points
Wetland floods < 5/10 years = 1 point

Score is (i) x (ii) = _____

Score	Rating	Functional Points
6	High	1
4	High	.8
2,3	Mod	.5
1	Low	.3
.5	Low	.1

Function & Value Summary and Overall Rating

Function & Value Parameters	Rating	Actual functional points	Possible Functional Points	Functional Units (Actual Points x Estimated AA Acreage)
A. Listed/Proposed/Candidate T&E Species Habitat	None	0	1	
B. MNHP Species Habitat	None	0	1	
C. General Wildlife Habitat	Low	.1	1	
D. General Fish/Aquatic Habitat	NA	NA	NA	
E. Flood Attenuation and Storage	Low	.1	1	
F. Sediment/Nutrient/Toxicant Removal	High	1	1	
G. Sediment/Shoreline Stabilization	Mod	.7	1	
H. Production Export/Food Chain Support	Low	.3	1	
I. Groundwater Discharge/Recharge	Low	.1	1	
J. Uniqueness	Low	.2	1	
K. Recreation/Education Potential	Low	.1	1	
L. Dynamic Surface Water Storage	NA	NA	NA	
Totals		2.6	10	

Overall AA Rating (Circle appropriate category based on the criteria outlined below): 26%

I II III [✓ IV]

Category I Wetland - Must satisfy one of the following criteria:

- o Score of .9 or 1 functional point for Listed/Proposed/Candidate Threatened or Endangered Species; or
- o Score of .9 or 1 functional points for Uniqueness or "High" rating for Uniqueness and Condition (#12) is "Undisturbed"; or
- o Score of 1 functional point for Flood Attenuation and Storage and answer to Question 14.E.3 is "yes"; or
- o Total actual functional points > 80% (round to nearest tenth) of total possible functional points.

Category II Wetland - Does not satisfy criteria for Category I and:

- o Score of 1 functional point for Species Rated S1, S2, or S3 by the Montana Natural Heritage Program; or
- o Score of 1 functional point for General Wildlife Habitat; or
- o "High" ratings for both General Wildlife Habitat and General Fish/Aquatic Habitat; or
- o "High" rating for Uniqueness or
- o Total actual functional points > 65% (round to nearest tenth) of total possible functional points.

Category III Wetland - Does not satisfy criteria for Category I, Category II, or Category IV.

[✓ Category IV Wetland] - Does not satisfy criteria for Category I, Category II, or Category III and:

- [✓ o] "Low" rating for Uniqueness; and
- [✓ o] "Low" rating for Production Export/Food Chain Support; and
- [✓ o] Total actual functional points < 30% (round to nearest tenth) of total possible functional points.

APPENDIX D

NOISE ASSESSMENT REPORT

MASTER FILE COPY

Montana Department of Transportation
Helena, Montana 59620-1001

Memorandum

To: Samuel A. Naseem, P.E.
Consultant Design Engineer

From: Cora G. Helm, Hazardous Waste Section
Environmental Services

Date: August 16, 1996

Subject: NOISE ASSESSMENT REPORT
Ravalli Weigh Station
F 5-2(30)27
CN 1337

A traffic noise assessment has been conducted for the above project. Four proposed sites were included in the analysis and are as follows:

1. O'Keefe site, MP 1.23
2. Otoupalak site, MP 3.43
3. South of Evaro site, MP 6.62
4. Ravalli site, MP 27.23

The proposed construction project presents a problem for modeling traffic noise because a weigh station does not behave as a two- or four-lane highway. It is not possible to model variations in noise caused by trucks pulling in and out of the weigh station, or idling for periods of time on the weigh station grounds, using established traffic noise prediction models. For the purposes of this report, traffic noise generated from US 93 will be identified, followed by a brief discussion of how the weigh station may alter these noise levels.

EXISTING NOISE CONDITIONS

Land uses along the project corridor consist mostly of undeveloped land and commercial land (as in Ravalli). The Federal Highway Administration (FHWA) classifies these land uses into categories C and D, respectively (see Table 1). These categories are assigned a Noise Abatement Criteria (NAC) to be used when determining noise impacts. Undeveloped lands, however, lack a numerical value for noise levels. For the sake of this noise report, the NAC of 67 dBA Leq for Activity Category B, which includes residences, will be used for the three proposed sites which are on undeveloped lands. Leq refers to "the equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same period."

Noise impacts occur when present or design year noise levels approach or exceed the NAC, or when there is a substantial increase in noise over existing levels due to the construction of a highway project. The Montana Department of Transportation defines "approach" as one decibel below the NAC, and "substantial increase" as a 10 decibel increase in noise.

Existing, or ambient, noise measurements were taken at the right-of-way line between 22 and 35 meters from centerline using a Metrosonics db-308 Sound Level Meter. The right-of-way line was chosen as the noise monitoring location because there are no sensitive receivers in the vicinities of the proposed locations, and because access was denied at one of the sites.

Measured noise levels at the right-of-way line ranged from 65 to 69 dBA at the date and time the measurements were taken (Table 2). Vehicles on US 93 are the predominant noise sources. These noise levels are in agreement with computer generated noise levels using existing traffic volumes.

FUTURE NOISE CONDITIONS

To represent future worst-case noise levels, projected traffic volumes and road configuration was input into a the FHWA Computer Traffic Noise Prediction Model. Table 3 lists the design year noise levels which may be expected based on projected traffic volumes for varying distances from centerline. The speeds used in the model are 93 kph for sites 1-3, and 68 kph for the Ravalli site.

RAVALLI SITE:

Future noise levels in Ravalli at distances of 25, 40, and 55 meters of centerline range from 66 to 71 dBA. The Noise Abatement Criteria for the Ravalli area is 72 dBA because land use is classified as Category C (Table 1). There are a few business which will experience design year noise levels from highway traffic alone that approach the NAC.

O'KEEFE, OTOUPALAK and SOUTH OF EVARO SITES:

Design year (2020) noise levels at distances of 25, 40 and 55 meters (within 180 feet) of centerline range from 69 to 74 dBA. According to FHWA Noise Abatement Criteria, these noise levels represent an impact, but only if a sensitive receiver such as a residence, is present. The closest residence, for example near the O'Keefe site, is 110 meters away from west edge of the proposed site, and 168 meters away from US 93.

WEIGH STATION NOISE

As mentioned earlier, the FHWA Traffic Noise Prediction Model is used to predict noise levels of highway traffic noise, and is not capable of predicting stop-and-start noise, or noise from idling vehicles. To aid in the estimation of noise produced by idling semi's, a previous study measured noise levels at a truck parking area in southeast Montana. At any one time, there were no more than 3 idling commercial trucks, and a small amount of auto and truck traffic traveling on the adjacent highway. The noise levels for 2-3 idling trucks, including adjacent highway traffic noise was 62 dBA. Because the volume of highway traffic is known in this study, noise contributed by passing vehicles can be subtracted from the overall noise level. The approximate noise level for the idling semi's then, is approximately 60 dBA at a distance of 12 meters from the nearest truck.

The idling semi's will act as a point source of noise, rather than as a line source like highway traffic. A point source of noise will drop off 6 dBA for every doubling of distance away from the source. With this drop off rate, the noise at 24 meters, 48 meters and 96 meters will be 56, 50, and 44 dBA. Forty-four dBA is the lower limit of noise that the Metrosonics noise meter will detect. If the number of idling semi's is doubled, it is estimated that noise levels would be 6 decibels higher.

SUMMARY

RAVALLI SITE:

Businesses in Ravalli which are close to the highway (25 m) will experience design year highway traffic noise levels that approach the NAC. Noise from an operating scale site may increase the noise levels by just one decibel. The highway traffic noise will likely overshadow noise from the weigh station. Noise mitigation, is neither reasonable nor feasible for the following reasons:

1. Numerous approaches which must be perpetuated eliminate the use of noise barriers for the highway.
2. FHWA does not provide noise insulation to commercial, for-profit businesses.
3. Due to right-of-way constraints, it is not feasible to alter the horizontal or vertical alignments of the highway to mitigate noise.

One mitigation measure that may help reduce highway traffic noise, but not noise from the scale site, is to reduce the speed limit through the town of Ravalli. It is currently posted at 45 mph, but a reduction of

10 mph may noticeably reduce noise levels. Although landscaping alone will not reduce noise, it can provide visual and psychological benefit.

O'KEEFE, OTOUPALAK, and SOUTH OF EVARO SITES:

Since there are no sensitive receivers in the vicinities of the proposed scale sites, we conclude that there will be no noise impacts as a result of construction of this project. However, if some of the nearby undeveloped lands were to be developed with residences or other noise-sensitive structures, then it is prudent to discuss future noise levels for the areas surrounding the proposed scale sites.

Based on the future projected traffic noise and estimate of noise from idling semi's, only receivers which are located at distances of less than approximately 50 meters from the idling trucks and within 50-60 meters of US 93 will experience noise levels which may approach the Noise Abatement Criteria of 67 dBA for Activity Category B. Beyond a distance of approximately 50-60 meters, the noise from idling semi's will be masked by the sound of traffic on US 93.

It is likely that the slowing and accelerating of trucks pulling into the weigh station will increase noise levels near the scale site slightly above the levels that are predicted. But this increase in noise would be most noticeable to receivers close to the scale site, and currently there are no receivers that will be affected. If a Weigh-in-Motion system is installed, fewer trucks will be required to stop, thus minimizing noise impacts to the surrounding area.

It is recommended that the scale site be designed with trees and other landscaping to reduce the visual and psychological impact of the scale site to adjacent landowners.

cc: Chris Cull, MME
Carl Peil
Jim Weaver
Karl Helvik

TABLE 1 - NOISE ABATEMENT CRITERIA AND ACTIVITY CATEGORY FOR CONSIDERING TRAFFIC NOISE IMPACTS

NOISE ABATEMENT CRITERIA (NAC)		
ACTIVITY CATEGORY	**Leq(h) dBA**	**DESCRIPTION OF ACTIVITY CATEGORY**
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above.
D	______	Undeveloped lands.
E	52 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: 23 CFR 772

TABLE 2 - NOISE MONITORING LOCATIONS AND RESULTS

SITE	LOCATION DESCRIPTION	DATE/TIME	DISTANCE FROM CENTERLINE	AMBIENT NOISE Leq (1 hr)
1	O'KEEFE	7/24/96 11:45 am	27 meters	65 dBA
2	OTOUPALAK	7/24/96 1:00 pm	26 meters	69 dBA
3	S OF EVARO	7/24/96 12:15 pm	35 meters	67 dBA
4	RAVALLI	7/24/96 1:45 pm	22 meters	67 dBA

TABLE 3 - PROJECTED TRAFFIC NOISE LEVELS

SITE	LOCATION DESCRIPTION	DISTANCE FROM CENTERLINE	DESIGN YEAR (2020) NOISE LEVEL Leq (1 hr)
1, 2, 3	O'KEEFE, OTOUPALAK, and S OF EVARO	25 meters	74 dBA
		40 meters	71 dBA
		55 meters	68 dBA
4	RAVALLI	25 meters	71 dBA
		40 meters	68 dBA
		55 meters	66 dBA

APPENDIX E

WEIGH-IN-MOTION REPORT

MOTOR CARRIER SERVICE WEIGH STATION
STPE F 5-2(30)27
(P.M.S. CONTROL NO. 1337)

ENVIRONMENTAL ASSESSMENT WIM OPERATION

STATE OF MONTANA
DEPARTMENT OF TRANSPORTATION

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEBRUARY 1997

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1.0 DESCRIPTION OF THE PROPOSED ACTION

The evaluation contained herein was prepared as a part of an Environmental Assessment (Ref. 1) to evaluate potential locations for a new Montana Department of Transportation (MDT) Motor Carrier Services (MCS) vehicle weigh station. The weigh station is to be located on the west side US 93 between Ravalli, Montana and the highway intersection with IH 90 west of Missoula, Montana. Location on the west side of US 93 will allow MCS to monitor southbound traffic on the highway. The locations of the sites under consideration for the purposes of the EA are listed below and are shown in Figure 1-1.

Alternative 1:	Muralt's Truck Stop	Milepost 0.50
Alternative 2:	O'Keefe Site	Milepost 1.23
Alternative 3:	Otoupalak Property	Milepost 3.43
Alternative 4:	Evaro Site	Milepost 6.62
Alternative 5:	Dirty Corner Site	Milepost 15.80
Alternative 6:	Ravalli Site	Milepost 27.23

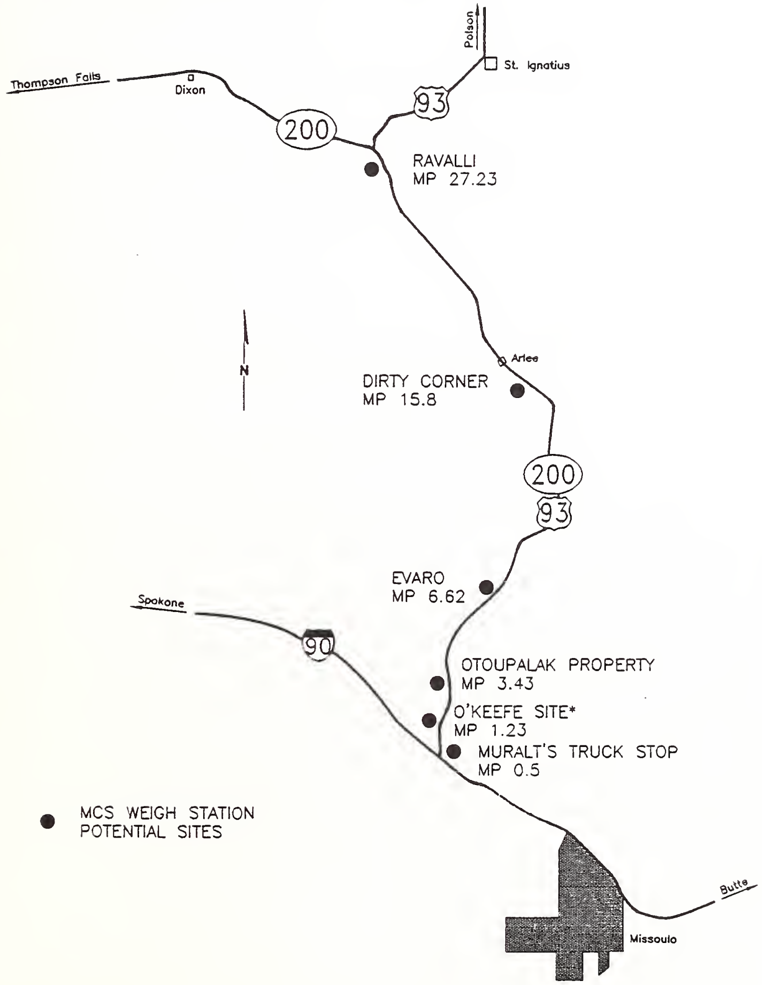
Weigh-in-motion (WIM) technology has been proposed which will permit initial vehicle weighing upstream of the weigh station on the highway mainline while the vehicle is in motion. Vehicles found to be in compliance will be permitted to continue by the weigh station, while those in question will be directed in for further weighing and review. This technology will enhance efficiency and minimize stopping of vehicles solely for potential weight restriction violations.

In addition to the screening aspect of WIM technology upstream of the alternative sites, an evaluation was undertaken to determine the feasibility of fully automating the weigh station to allow WIM and electronic credential verification.

2.0 PURPOSE AND NEED

The primary purpose of the proposed weigh station will be that of weighing vehicles to ensure compliance with highway weight limitations. Vehicle cargo, licensing documentation and safety requirements of the commercial vehicles stopped at the facility will be reviewed. Another service provided by the weigh station will be that of licensing and permitting trucking users.

FIGURE 1-1
ALTERNATIVE MCS WEIGH STATION SITES



The section of US 93 in Missoula and Lake Counties (Missoula to Polson) is one of the most heavily traveled trucking corridors in Montana. Currently, there are no facilities located within the area to monitor this activity. The Lolo Weigh Station on US 93 south of Missoula was recently closed for safety reasons. Proximity of a new weigh station to Missoula will also permit service to the heaviest trucking hub in the region.

3.0 ALTERNATIVES UNDER CONSIDERATION

Several alternative possible site locations were evaluated in order to identify the most acceptable site for the construction of a new MCS weigh station on US 93. This section of the evaluation describes alternatives studied and evaluated in detail for feasibility of application of WIM technology.

3.1 EVALUATION CRITERIA

Automation of the weigh station utilizing WIM technology requires that certain criteria be met to satisfy the operational requirements of the system.

3.1.1 System Components Necessary for WIM Screening

For WIM screening of vehicles, the following system components are necessary:

1. WIM system which consists of a pressure-sensing device, axle detector, magnetic induction loops before and after the pressure-sensing device, and a roadside computer. The WIM detector provides axle weight and spacing, vehicle speed, and other relevant data to be processed by the WIM electronics. The WIM system must be located at an appropriate distance from the weigh station, such that the driver can be notified of the potential weight violation and safely take the appropriate action to stop at the weigh station. This distance should be a minimum of 1,500 feet at truck speeds of 60 miles per hour, depending upon rural/urban location, number of lanes and roadway grade. In order for the WIM equipment to properly weigh vehicles, the WIM detector must be located on level pavement which has a maximum of two percent grade within an area where no braking is required of vehicle operators. In addition, the pavement in advance of the WIM detector should be smoothed in order to prevent vehicle bounce (bouncing vehicles will distort the WIM measurement). Depending on the condition of the roadway, it may

be desirable to replace the pavement in advance of the WIM with a smoothed concrete surface.

2. Enforcement cameras to capture images of potential weight violators and those avoiding the WIM detector.
3. Signing to advise the vehicle operator of the requirement to stop at the weigh station for weight verification if a potential violation is determined by the WIM system.
4. Magnetic induction loops adjacent to the pressure-sensing device in the opposite direction of travel to detect vehicles avoiding the WIM detector.
5. Communication system to provide information from the WIM system to the weigh station utilizing rf modem, fiber optic cable, or wires.
6. WIM computer in the weigh station to process WIM system information and provide visual images and other data to station operator for enforcement and system management.

3.1.2 System Components Necessary for Full Automation of a Weigh Station

For fully automating the weigh station to allow WIM and electronic credential verification, the following system components are necessary:

1. All six components listed in 3.1.1 above.
2. Advance Automatic Vehicle Identifier (AVI) antenna at the WIM detector site to identify the vehicle by interrogating a transponder mounted inside the vehicle.
3. Clearance AVI antenna downstream of the WIM system in advance of the weigh station to send a bypass signal to the transponder in the vehicle to communicate its status to the driver.
4. Communication system to provide information from the clearance AVI antenna to the weigh station utilizing rf modem, fiber optic cable, or wires.
5. Transponder with green and red bypass indicator lights mounted inside the front windshield of the vehicle.
6. Compliance AVI antenna downstream of the weigh station to detect vehicles which were not authorized to bypass.
7. Communication system to provide information from the compliance AVI antenna to the weigh station utilizing rf modem, fiber optic cable, or wires.
8. The WIM/AVI system must be located at an appropriate distance from the weigh station, such that the vehicle weight and credentials can be read and verified, and

the driver can be notified of the potential weight or credentials violation and safely take the appropriate action to stop at the weigh station. This distance should be a minimum of 3,000 feet at truck speeds of 60 miles per hour, depending upon rural/urban location, number of lanes and roadway grade.

3.1.3 Effectiveness of WIM Technology

The effectiveness of the two applications of truck weight enforcement at highway speeds described in this document - WIM screening of vehicles and full automation of the weigh station to allow WIM and electronic credential verification - is dependent upon the following factors:

1. Existing volume of overweight trucks. MDT officials estimate that approximately 12 percent of trucks on US 93 in the vicinity of the alternative sites are overweight and that the majority of loaded trucks travel in the southbound direction. The distribution of weights of trucks using US 93 is unknown at this time; this information is necessary to quantify percentage of trucks to be stopped at the weigh station as discussed later in this document.
2. Accuracy of WIM equipment. Functional performance requirements (Ref. 2) for this application suggest tolerances which range from a maximum of 6 percent for gross vehicle weight to a maximum of 15 percent for axle load.
3. MDT enforcement policies such as weight enforcement tolerance, percentage of trucks to be stopped for credentials verification, safety inspection, etc. MDT officials estimate that approximately 13 percent of trucks at weigh stations are observed with some type of credentials and/or safety violation.
4. Percentage of participation and cooperation by truck operators in acquisition and installation of necessary electronics in vehicles. A reasonable assumption is that approximately 20 percent of truck operators will participate in such a program. In other states where such systems operate, non-participating vehicle operators seek involvement when observing the decrease in delay experienced by participating vehicle operators. Driver convenience and satisfaction are a high priority in today's trucking industry; these factors lead other firms to participate in this type of program. Based on this fact, it is anticipated that participation in such a program will increase beyond the assumed 20 percent.

Prior to implementation of WIM screening, during the time a weigh station is in operation, the operator will stop 100 percent of trucks for static weight verification, depending upon actual

truck volumes, queuing, etc. Based on the factors stated above, implementation of WIM screening will result in no more than 56 percent of the trucks being stopped for static scale weight verification.

Based on the factors stated above, implementation of WIM screening and full automation of the weigh station to allow WIM and electronic credentials verification will result in no more than 59 percent of the trucks being stopped for static scale weight verification and credential/safety verification.

3.2 ALTERNATIVES EVALUATED IN DETAIL

Alternatives studied and analyzed in this document were selected based on engineering and environmental studies completed to date by the MDT and its consultants.

3.2.1 Alternative 2 - O'Keefe Site Located at Milepost 1.23

This site is located approximately 1.25 miles north of the intersection of US 93 and IH 90. The site occupies the northwest corner of the intersection of US 93 and Williams Road (the Frenchtown Frontage Road). US 93 in the vicinity of the site consists of a four lane section with left turn lanes at the Williams Road intersection.

- **Speed Limits** - The speed limit is 45 mph from IH 90 to Milepost 0.09, 55 mph from Milepost 0.09 to 0.49, and reasonable and prudent (60 mph for trucks) from Milepoint 0.49 to 26.65. The change from 55 to 60 mph for trucks occurs 3,907 feet south of the site.

- **Alignment** - The grade along US 93 is 0.94 percent at the site. To the south, it remains at 2.0 percent or less for a distance of 2,450 feet, increases to 3.0 percent for a distance of 600 feet, then increases to 5.9 percent for a distance of 500 feet. The grade is less than 2.0 percent for 3,650 feet to the north. A horizontal curve 632 feet in length with a radius of 1,910 feet is located approximately 900 feet north of the site.

- **Traffic Volumes** - Traffic volume data provided by MDT are summarized as follows (Ref. 3). Current average daily traffic volume (ADT) on US 93 in the vicinity of the site is 9,150, with projected ADT of 10,800 in 2000 and 21,100 in 2020. Design hourly volume is estimated to be 13.8 percent of the projected ADT. Directional distribution is 50/50 percent. Commercial trucks (those subject to weight restrictions and other MCS regulations) represent 9.9 percent of the total.

3.2.2 Alternative 3 - Otoupalak Site Located at Milepost 3.43

This site is located approximately 3.5 miles north of the intersection of US 93 and IH 90. US 93 in the vicinity of the site consists of a four lane section.

- **Speed Limits** - The speed limit is reasonable and prudent (60 mph for trucks) throughout the area of the site.

- **Alignment** - The grade along US 93 is 1.79 percent at the site. To the south, it remains at 2.0 percent or less for a distance of 1,900 feet, increases to 2.2 percent for a distance of 800 feet, then remains less than 2.0 percent for a distance of 3,800 feet. A horizontal curve 1,970 feet in length with a radius of 4,584 feet is located approximately 650 feet south of the site. Another horizontal curve 810 feet in length with a radius of 2,292 feet is located approximately 5,200 feet further south. To the north, the grade remains at 2.0 percent or less for a distance of 1,130 feet, varies from 2.4 to 2.9 percent for a distance of 1,870 feet, then remains at 2.0 percent or less for a distance of 1,090 feet. A horizontal curve 861 feet in length with a radius of 1,637 feet is located approximately 1,460 feet north of the site. Another horizontal curve 803 feet in length with a radius of 2,547 feet is located approximately 1,100 feet further north.

- **Traffic Volumes** - Traffic volume data provided by MDT are summarized as follows. Current average daily traffic volume (ADT) on US 93 in the vicinity of the site is 9,150, with projected ADT of 10,800 in 2000 and 21,100 in 2020. Design hourly volume is estimated to be 13.8 percent of the projected ADT. Directional distribution is 50/50 percent. Commercial trucks (those subject to weight restrictions and other MCS regulations) represent 9.9 percent of the total.

3.2.3 Alternative 4 - Evaro Site Located at Milepost 6.62

This site is located approximately 6.5 miles north of the intersection of US 93 and IH 90 on the immediate south side of the unincorporated community of Evaro. US 93 in the vicinity of the site consists of a two lane section.

- **Speed Limits** - The speed limit is reasonable and prudent (60 mph for trucks) throughout the area of the site.

- **Alignment** - The grade along US 93 is 0.05 percent at the site. It increases to 2.2 percent 100 feet south and continues to increase to a maximum of 6.1 percent at 2,560 feet, after which it decreases to 2.0 percent 3,600 feet south of the site. To the north, it remains less than 2.0 percent for a distance of 6,400 feet. A horizontal curve 1,577 feet in length with a radius of 2,865 feet is located approximately 3,400 feet north of the site.

- **Traffic Volumes** - Traffic volume data provided by MDT are summarized as follows. Current average daily traffic volume (ADT) on US 93 in the vicinity of the site is 9,150,

with projected ADT of 10,800 in 2000 and 21,100 in 2020. Design hourly volume is estimated to be 13.8 percent of the projected ADT. Directional distribution is 50/50 percent. Commercial trucks (those subject to weight restrictions and other MCS regulations) represent 9.9 percent of the total.

3.2.4 Alternative 6 - Ravalli Site Located at Milepost 27.23

This site is located approximately 27.25 miles north of the intersection of US 93 and IH 90. The site is located within the community of Ravalli approximately 0.25 mile south of the intersection of US 93 and Montana SH 200. US 93 in the vicinity of the site consists of a two lane section which is widened at SH 200 to provide a northbound left turn lane and speed change lanes.

- **Speed Limits** - The speed limit on US 93 is reasonable and prudent (60 mph for trucks) from the south to a point 3,062 feet from the site where it decreases to 45 mph and remains to a point 3,274 feet north of the site. The speed limit on SH 200 is reasonable and prudent (60 mph for trucks) from US 93 to the west.

- **Alignment** - The grade along US 93 is 0.08 percent at the site. To the south, it remains at 2.0 percent or less for a distance of 2,700 feet, increases to 2.7 percent for a distance of 800 feet, then remains less than 2.0 percent for a distance of 1,800 feet. A horizontal curve 1,157 feet in length with a radius of 3,820 feet is located approximately 500 feet south of the site. Another horizontal curve 287 feet in length with a radius of 1,637 feet is located approximately 3,000 feet further south. To the north, the grade remains less than 2.0 percent for a distance of 600 feet, then increases to more than 6.0 percent for a distance of 8,100 feet. A horizontal curve 1,219 feet in length with a radius of 955 feet is located approximately 1,600 feet north of the site.

- **Traffic Volumes** - Traffic volume data provided by MDT are summarized as follows. Current average daily traffic volume (ADT) on US 93 in the vicinity of the site is 6,870, with projected ADT of 7,850 in 2000 and 15,300 in 2020. Design hourly volume is estimated to be 13.8 percent of the projected ADT. Directional distribution is 50/50 percent. Commercial trucks (those subject to weight restrictions and other MCS regulations) represent 13.6 percent of the total.

3.3 ALTERNATIVES NOT EVALUATED IN DETAIL

The following alternatives were not evaluated in this document due to having been eliminated previously for other reasons.

Alternative 1 - Muralt's Truck Stop Located at Milepost 0.50

Alternative 5 - Dirty Corner Gravel Pit Site Located at Milepost 15.80

3.4 SUMMARY OF ALTERNATIVES

3.4.1 Alternative 2 - O'Keefe Site Located at Milepost 1.23

The alignment and speed limits within the area of the site should permit satisfactory installation of a WIM system for screening of trucks in advance of the weigh station in either the northbound or southbound direction. Although there is a significant grade along US 93 and a significant activity center to the south, the distance from these conditions (2,450 feet) should provide adequate time for stable truck flow and ability to maneuver safely into the site. Estimated cost for the installation of WIM screening equipment for either direction is $577,000. Use of WIM screening should result in no more than 56 percent of the trucks being stopped for static scale weight verification. Based on truck volume data provided by MDT (Ref. 3), this would result in no more than 300 from an estimated daily total of 535 trucks to be stopped in each direction by the year 2000.

The distance available to the south for installation of the necessary equipment for fully automating the weigh station to allow WIM and electronic credential verification is somewhat less than desirable. More detailed study (actual truck speeds, current traffic volumes and percentage of trucks, truck acceleration/deceleration characteristics, etc.) should be undertaken to confirm appropriateness of conditions for full automation. Alignment and speed conditions to the north are suitable for automating the weigh station. Estimated cost for the installation of this equipment is $622,000. Full automation of the weigh station to allow WIM and electronic credential verification should result in no more than 59 percent of the trucks being stopped for static scale weight and credentials verification. Based on truck volume data provided by MDT (Ref. 3), this would result in no more than 316 from an estimated daily total of 535 trucks to be stopped in the southbound direction by the year 2000.

3.4.2 Alternative 3 - Otoupalak Site Located at Milepost 3.43

The alignment within the area of the site should permit satisfactory installation of a WIM system for screening of trucks in advance of the weigh station in either the northbound or

southbound direction, although equipment for the southbound direction will be required considerably further from the weigh station (3,000 vs. 1,500 feet). Estimated cost for the installation of WIM screening equipment is $577,000 and $580,000 for the northbound and southbound directions, respectively. Use of WIM screening should result in no more than 56 percent of the trucks being stopped for static scale weight verification. Based on truck volume data provided by MDT (Ref. 3), this would result in no more than 300 from an estimated daily total of 535 trucks to be stopped in each direction by the year 2000.

The distance available in both directions for installation of the necessary equipment for fully automating the weigh station to allow WIM and electronic credentials verification is adequate, although communications will require more extensive installation due to alignment to the north. Estimated cost for the installation of this equipment is $622,000 and $629,000 for the northbound and southbound directions, respectively. Full automation of the weigh station to allow WIM and electronic credential verification should result in no more than 59 percent of the trucks being stopped for static scale weight and credentials verification. Based on truck volume data provided by MDT (Ref. 3), this would result in no more than 316 from an estimated daily total of 535 trucks to be stopped in each direction by the year 2000.

3.4.3 Alternative 4 - Evaro Site Located at Milepost 6.62

The alignment within the area of the site should permit satisfactory installation of a WIM system for screening of trucks in advance of the weigh station in either the northbound or southbound direction, although equipment for the northbound direction will be required considerably further from the weigh station (3,600 vs. 1,500 feet). Estimated cost for the installation of WIM screening equipment is $477,000 and $481,000 for the southbound and northbound directions, respectively. Use of WIM screening should result in no more than 56 percent of the trucks being stopped for static scale weight verification. Based on truck volume data provided by MDT (Ref. 3), this would result in no more than 300 from an estimated daily total of 535 trucks to be stopped in each direction by the year 2000.

The distance available in both directions for installation of the necessary equipment for fully automating the weigh station to allow WIM and electronic credentials verification is adequate, although communications will require more extensive installation due to alignment to the south. Estimated cost for the installation of this equipment is $534,000 and $537,000 for the southbound and northbound directions, respectively. Full automation of the weigh station

to allow WIM and electronic credential verification should result in no more than 59 percent of the trucks being stopped for static scale weight and credentials verification. Based on truck volume data provided by MDT (Ref. 3), this would result in no more than 316 from an estimated daily total of 535 trucks to be stopped in each direction by the year 2000.

3.4.4 Alternative 6 - Ravalli Site Located at Milepost 27.23

The alignment within the area of the site should permit satisfactory installation of a WIM system for screening of trucks in advance of the weigh station in the northbound direction. Significant horizontal and vertical alignment immediately north of the site which continue for 1.65 miles would require extensive communications installation. In addition, the intersection of SH 200 approximately 0.25 mile north of the site would require installation of additional WIM equipment to screen trucks from the north. Estimated cost for the installation of WIM screening equipment for the northbound direction is $477,000. Use of WIM screening should result in no more than 56 percent of the trucks being stopped for static scale weight verification. Based on truck volume data provided by MDT (Ref. 3), this would result in no more than 299 from an estimated daily total of 534 trucks to be stopped in the northbound direction by the year 2000.

The distance available in the northbound direction for installation of the necessary equipment for fully automating the weigh station to allow WIM and electronic credentials verification is adequate. Significant horizontal and vertical alignment and the intersection of SH 200 preclude cost-effective installation of necessary equipment for automation of the weigh station for the southbound direction. Estimated cost for the installation of this equipment for the northbound direction is $537,000. Full automation of the weigh station to allow WIM and electronic credential verification should result in no more than 59 percent of the trucks being stopped for static scale weight and credentials verification. Based on truck volume data provided by MDT (Ref. 3), this would result in no more than 315 from an estimated daily total of 535 trucks to be stopped in the northbound direction by the year 2000.

3.4.5 Analysis of Alternatives

Table 1-1 summarizes estimated cost for each of the alternatives. The higher costs for the O'Keefe and Otoupalak sites result from the need to install equipment on two lanes in each direction as well as additional communications requirements for the latter site. Due to significant topographic constraints, deployment of both types of WIM applications in both

directions would not be feasible for the O'Keefe and Ravalli sites. Only the Otoupalak and Evaro sites allow both applications in each direction. Estimated cost for the Otoupalak site is more than Evaro due to the four lane section and roadway alignment.

Table 1-1

Alternative Sites - Estimated Cost

Site	WIM Screening		Full Automation	
	Northbound	Southbound	Northbound	Southbound
O'Keefe	$577,000	$577,000	N/A	622,000
Otoupalak	577,000	580,000	$622,000	629,000
Evaro	481,000	477,000	537,000	534,000
Ravalli	477,000	N/A	537,000	N/A

3.5 THE PREFERRED ALTERNATIVE

The Evaro site is the preferred alternative for the following reasons:

1. Suitability for deployment of both types of WIM applications in both directions
2. Least estimated cost for alternatives allowing full deployment of both applications
3. Site with least significant topographic constraints

REFERENCES

1. Environmental Assessment - Motor Carrier Service Weigh Station, STPE F 5-2(30)27, (P.M.S. Control No. 1337), State of Montana Department of Transportation, U.S. Department of Transportation, Federal Highway Administration, September 1996.

2. Standard Specification for Highway Weigh-in-Motion (WIM) Systems with User Requirements and Test Method - E 1318-92, ASTM, January 1993.

3. Memorandum from Samuel A. Naseem to Dan J. Bisom, Montana Department of Transportation, July 29, 1996.

APPENDIX F

FARMLAND CONVERSION IMPACT RATINGS

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 9/4/96
Name Of Project O'Keefe Site	Federal Agency Involved FHWA
Proposed Land Use Weigh Station	County And State Missoula Montana
PART II *(To be completed by SCS)*	Data Request Received By SCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply — do not complete additional parts of this form).*	Yes ☐ No ☐	Acres Irrigated	Average Farm Size
Major Crop*(s)*	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Nama Of Local Sita Assessment Systam	Date Land Evaluation Returned By SCS	

	Maximum Points	Alternative Site Rating Site A	Site B	Site C	Site D
PART III *(To be completed by Federal Agency)*					
A. Total Acres To Be Converted Directly		5			
B. Total Acres To Be Converted Indirectly		--			
C. Total Acres In Site		5			
PART IV *(To be completed by SCS)* Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					
PART V *(To be completed by SCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*					
PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	15			
2. Perimeter In Nonurban Use	10	8			
3. Percent Of Site Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	--	--			
6. Distance To Urban Support Services	--	--			
7. Size Of Present Farm Unit Compared To Average	10	1			
8. Creation Of Nonfarmable Farmland	25	0			
9. Availability Of Farm Support Services	5	5			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	25	0			
12. Compatibility With Existing Agricultural Use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	49			
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	100			
Total Site Assessment *(From Part VI above or a local site assessment)*	160	49			
TOTAL POINTS *(Total of above 2 lines)*	260	149			

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

Form AD-1006 (10-83)

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 9/4/96
Name Of Project Otoupalak Site	Federal Agency Involved FHWA
Proposed Land Use Weigh Station	County And State Missoula Montana
PART II *(To be completed by SCS)*	Date Request Received By SCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply — do not complete additional parts of this form).*	Yes ☐ No ☐	Acres Irrigated	Average Farm Size
Major Crop*(s)*	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By SCS	

		Alternative Site Rating			
PART III *(To be completed by Federal Agency)*		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		5			
B. Total Acres To Be Converted Indirectly		--			
C. Total Acres In Site		5			
PART IV *(To be completed by SCS)* Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					
PART V *(To be completed by SCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*					
PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	15			
2. Perimeter In Nonurban Use	10	9			
3. Percent Of Site Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	20			
5. Distance From Urban Builtup Area	--	--			
6. Distance To Urban Support Services	--	--			
7. Size Of Present Farm Unit Compared To Average	10	1			
8. Creation Of Nonfarmable Farmland	25	0			
9. Availability Of Farm Support Services	5	5			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	25	0			
12. Compatibility With Existing Agricultural Use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	50			
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	100			
Total Site Assessment *(From Part VI above or a local site assessment)*	160	50			
TOTAL POINTS *(Total of above 2 lines)*	260	150			

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 9/4/96
Name Of Project Evaro Site	Federal Agency Involved FHWA
Proposed Land Use Weigh Station	County And State Missoula Montana
PART II *(To be completed by SCS)*	Date Request Received By SCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply — do not complete additional parts of this form).*	Yes ☐	No ☐	Acres Irrigated	Average Farm Size
Major Crop*(s)*	Farmable Land In Govt. Jurisdiction Acres: %		Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System		Date Land Evaluation Returned By SCS	

		Alternative Site Rating			
PART III *(To be completed by Federal Agency)*		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		5			
B. Total Acres To Be Converted Indirectly		--			
C. Total Acres In Site		5			
PART IV *(To be completed by SCS)* Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					
PART V *(To be completed by SCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*					
PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	15			
2. Perimeter In Nonurban Use	10	10			
3. Percent Of Site Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	--	--			
6. Distance To Urban Support Services	--	--			
7. Size Of Present Farm Unit Compared To Average	10	1			
8. Creation Of Nonfarmable Farmland	25	0			
9. Availability Of Farm Support Services	5	5			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	25	0			
12. Compatibility With Existing Agricultural Use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	51			
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	100			
Total Site Assessment *(From Part VI above or a local site assessment)*	160	51			
TOTAL POINTS *(Total of above 2 lines)*	260	151			

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 9/4/96
Name Of Project Ravalli Site	Federal Agency Involved FHWA
Proposed Land Use Weigh Station	County And State Lake Montana
PART II *(To be completed by SCS)*	Date Request Received By SCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply — do not complete additional parts of this form).*	Yes ☐ No ☐	Acres Irrigated	Average Farm Size
Major Crop*(s)*	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By SCS	

		Alternative Site Rating			
PART III *(To be completed by Federal Agency)*		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		5			
B. Total Acres To Be Converted Indirectly		--			
C. Total Acres In Site		5			
PART IV *(To be completed by SCS)* Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					
PART V *(To be completed by SCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*					
PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	15			
2. Perimeter In Nonurban Use	10	10			
3. Percent Of Site Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	--	--			
6. Distance To Urban Support Services	--	--			
7. Size Of Present Farm Unit Compared To Average	10	2			
8. Creation Of Nonfarmable Farmland	25	0			
9. Availability Of Farm Support Services	5	2			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	25	0			
12. Compatibility With Existing Agricultural Use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	49			
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	100			
Total Site Assessment *(From Part VI above or a local site assessment)*	160	49			
TOTAL POINTS *(Total of above 2 lines)*	260	149			

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

Form AD-1006 (10 83

APPENDIX G

CORRESPONDENCE PERTINENT
to the
PROPOSED PROJECT

LAKE COUNTY LAND SERVICES
PLANNING AND SANITATION
106 Fourth Avenue East
Polson, Montana 59860-2175
Telephone 406-883-7236

July 24, 1996

Morrison-Maierle Environmental Corp.
Chris Cull, CEP
2020 Grand Ave.
Billings, MT. 59102

Re: Flood hazard evaluation Ravalli site.

Dear Mr. Cull:

As requested, I have conducted an on-site flood hazard evaluation on the property in Ravalli that is proposed to be used as a weigh station. Based on the information gathered during this visit, and the information provided by F.E.M.A., I am able to draw the following conclusions:

1) The property is located outside of the designated 100-year flood hazard zone of the Jocko River as delineated on F.I.R.M. 30047C0450B.

2) It is possible that the limit of the flood hazard would be expanded to include a portion of this tract if the existing crossing of the rail road on the north boundary of the property is altered.

3) Any development of this property would be exempt to the requirements of the Lake County Floodplain Regulations.

For your information, I have included a copy of a portion the appropriate flood rate map that applies to this property. Flood hazard delineations were obtained from the following source:

FEMA, Flood Insurance Rate Map No. 30047C0450B
Effective Date: 12/17/87
Community: 300155
Panel No. 0450
Suffix B

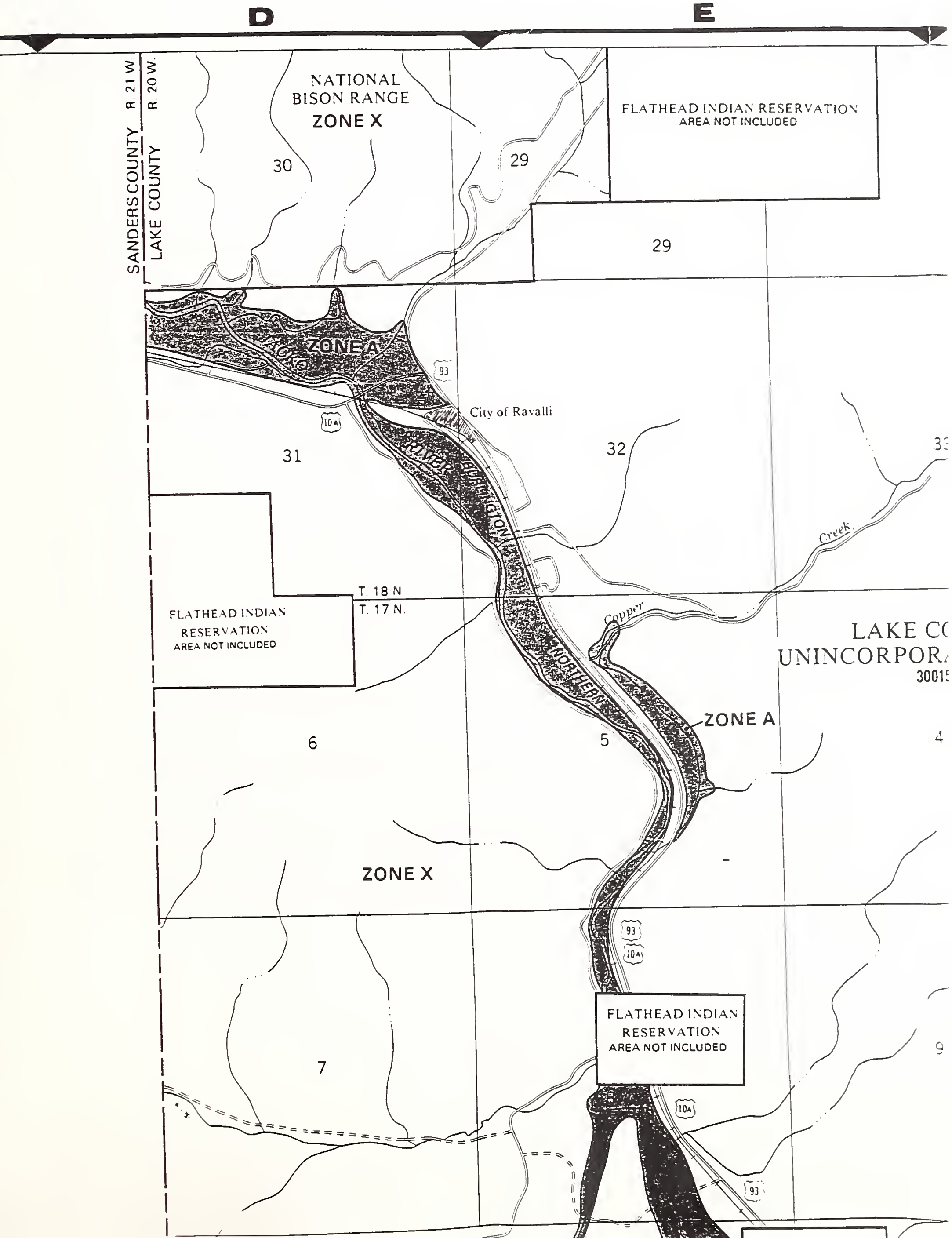
*Note The determination is based on the Flood Insurance Rate Map of Lake County. This letter does not imply that the referenced property will or will not be free from flooding or damage. A property not in a Special Flood Hazard Area may be damaged by a flood greater than that predicted on the FIRM or from a local drainage problem not shown on the map. This letter does not create liability on the part of Lake County, or any officer or employee thereof, for any damage that results from reliance on this determination.

If you have further questions regarding this matter, please feel free to contact me at 883-7235.

Sincerely,

Forrest Sanderson

Forrest Sanderson
Floodplain Administrator


D
E
SANDERS COUNTY
LAKE COUNTY
R. 21 W.
R. 20 W.
NATIONAL BISON RANGE
ZONE X
30
29
FLATHEAD INDIAN RESERVATION
AREA NOT INCLUDED
29
ZONE A
93
10A
City of Ravalli
31
32
RIVER
BURLINGTON
NORTHERN
T. 18 N
T. 17 N.
FLATHEAD INDIAN RESERVATION
AREA NOT INCLUDED
Creek
Copper
LAKE C
UNINCORPOR
3001
ZONE A
6
5
4
ZONE X
93
10A
FLATHEAD INDIAN RESERVATION
AREA NOT INCLUDED
7
9
10A
93

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

February 10, 1997

Mr. Chris Cull
MME Corporation
2020 Grand Avenue
Billings, Montana 59102

SUBJECT: The Environmental Assessment for MCS Weigh Station, Highway 93; the O'Keefe site and the Otoupalak site

Dear Mr. Cull:

As we discussed via telephone on February 6, we have reached consensus on the following issues:

- you have agreed to design into each option, a grassy swale for the retention of storm water from a 24 hour, 5 year storm event at each of the two sites we currently believe to be within the Missoula Valley Sole Source Aquifer;
- we agree that there is little increased risk of a hazardous materials accident at these sites and that no special on-site spill containment is warranted;
- the drinking water well located on site will be drilled and constructed according to State and Local regulations; and
- the septic system at the sites will be designed and constructed according to State and Local regulations or the site will be connected to the local waste water system.

Except for the issues identified above we have no additional concerns with this construction project at this time. Thank you for your cooperation with the Sole Source Aquifer program for the Missoula Valley Aquifer. If you have additional questions or wish clarification you can contact me at (303) 312-6271.

Sincerely,

William J. Monheiser,
Regional Sole Source Aquifer Coordinator
US EPA Region VIII

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MONTANA STATE HISTORIC PRESERVATION OFFICE

NHPA Section 106 \ Other Consultation

This form constitutes a record of your consultation with the Montana Historic Preservation Officer on a particular project and is the official SHPO reply. The dates of SHPO actions appear in the appropriate boxes.

Please Route This Form To:	MDT Jon Axline
Your Agency Requested Consultation with the Montana State Historic Preservation Officer (SHPO) on this Project under this Law or Regulation:	NHPA

PROJECT NUMBER	F5-2(30)27	**AGENCY**	MDT	**OTHER Agency**	
PROJECT NAME and Other Descriptions	Ravalli Weigh Station	**Dates and Separate Requests to SHPO on This Project**	02/04/96	Stan	

THIS FORM documents	1	**Individual actions.**

Memo(s) to Sender

Dear Jon:

Thank you for consulting with us regarding the above referenced project. We support continued consultation with the Culture Committees and the Tribal Preservation Office. If a location is considered within the exterior boundaries of the reservation, the THPO rather the SHPO is the primary review entity. Based on the documentation presented we agree that there do not appear to be Historic Properties within the inventoried parcels.

DETERMINATION OF ELIGIBILITY The SHPO Has Considered Whether, per Your Request, Sites Either Meet or Do Not Meet the Criteria of the National Register of Historic Places. The Finding of the SHPO is as Follows:	**Sites which Meet National Register Criteria**		**Sites Not Meeting National Register Criteria**	

Criterion A Findings	**Criterion B Findings**	**Criterion C Findings**	**Criterion D Findings**

DETERMINATIONS OF EFFECT The shpo has considered whether this undertaking will have an affect on significant historic properties. The finding of the shpo is as follows:	**No Eligible or Listed Properties Are Within the Area of**		**The Project Will Have NO EFFECT on These**	
	Potential Effect	X	**Eligible Properties**	

Descriptions of Effects on Eligible Property Using 36 CFR 800.9		**The Effect on These Properties Is:**	
		Adverse	
		Not Adverse.	

Other Comments:			
Reviewer Signatures	Stan Wilmoth	02/06/97	**:Dates**

PLACE THE DATE OF THE APPROPRIATE ACTION IN THE SPACE PROVIDED. Skip if already indicated in form above.

No Data		Technical Assistance		National Register Submission	
Federal File Search		Public Education		National Register Listing	
State\Local Inventory Review		EA or EIS review		No Comment	
Inventory Submitted under MOU		Review under PA\MOA		Tax Review	
Development of PA\MOA		Signed PA		Signed Antiquities Permit	
Signed MOA		Review under Antiquities Act		No Properties	02/06/97

"ALTERNATIVE ACCESSIBLE FORMATS OF THIS DOCUMENT WILL BE PROVIDED ON REQUEST."